





THE ARCTIC REGIONS.



THE
ARCTIC REGIONS

ILLUSTRATED WITH PHOTOGRAPHS TAKEN

ON AN ART EXPEDITION TO

GREENLAND.

BY

WILLIAM BRADFORD.

WITH DESCRIPTIVE NARRATIVE

BY THE ARTIST.



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TO THE MEMORY OF
LE GRAND LOCKWOOD,

WIDELY KNOWN FOR HIS GENEROUS PATRONAGE OF THE ARTS

AND FOR HIS ACTS OF UNSELFISH BENEVOLENCE,

This Work is dedicated

BY

THE AUTHOR.



WILCOX MOUNTAIN WITH A STORM-CLOUD.

A FEW WORDS OF EXPLANATION.



HIS volume is the result of an expedition to the Arctic Regions, made solely for the purposes of art, in the summer of 1869.

From my first essays in painting my tastes have led me specially to the study of marine subjects. In this connection a perusal of the "History of the Grinnell Expedition," by Dr. Kane, and Lord Dufferin's "Letters from High Latitudes," made so powerful an impression that I was seized with a desire, which became uncontrollable, to visit the scenes they had described, and study Nature under the terrible aspects of the Frigid Zone. I had not the means to do this as I would; but, with the kind assistance of my friend Dr. J. C. Sharp of Boston, I was able to fit out, in June, 1861, a vessel of 130 tons on a voyage to the coast of Labrador. Although I had to depend on sails entirely, and to encounter many petty difficulties, the trip was so far satisfactory that I repeated it the next season, and so on with but one exception through six succeeding years. These voyages were full of interest and instruction. I obtained sketches and studies which were invaluable to me, as well as fresh ideas of my subject.

But I was not satisfied. The Labrador coast only stimulated my desire to push further north. It seemed impossible for me to accomplish this, the expense being utterly beyond my resources. It would require about twenty thousand dollars—four thousand pounds sterling—for the expedition. At this juncture aid was unexpectedly at hand. Conversing on the topic with the late Le Grand Lockwood of New York, a man of large heart and sympathising nature, he generously offered to supply whatever pecuniary aid I should require to fully carry out my objects. I did not lose a moment in commencing preparations. I was particularly fortunate in securing a remarkably staunch steamer, built expressly for Arctic navigation, commanded by

Captain John Bartlett, who couples a heroic daring disposition with rare discretion and sound judgment. The two officers were his brothers, both excellent men, and we had a picked crew of hardy Newfoundlanders. And let me note here that captain, officers and crew were temperance men.

I was desirous on this voyage to have the companionship of the distinguished Arctic explorer, Dr. I. I. Hayes, who has penetrated further towards the North Pole than any other living human being. To my intense satisfaction he accepted my invitation to make one of the expedition, by which I had the benefit of his extensive knowledge and great experience in carrying out my art designs. I was also most fortunate in securing the services of Mr. Dunmore and Mr. Critcherson from the establishment of Mr. J. W. Black of Boston. These gentlemen had accompanied me on previous voyages, and are two of our best and most skilful photographers. They were indefatigable in their efforts to overcome the obstacles which were constantly presented, and which appeared really to have no end. I need only point to the specimens which illustrate this volume as proofs of their great fidelity and skill. To complete my good fortune, I enjoyed the society of three young gentlemen who consented to become my guests for the trip, and who brought on board a stock of vivacity and good spirits which served us efficiently throughout. These were, Mr. Henry Lockwood, the son of my friend; his cousin Mr. William Benedict of New York, and Mr. B. Dalton Dorr, of Philadelphia.

My grateful acknowledgments are due to my friend Mr. B. F. de Costa, for his admirable chapter on Ancient Greenland which commences the book. This chapter will be found free from the errors and imperfections of the subsequent pages, for which I am alone responsible.

W. B.

LONDON, Oct. 7, 1872.



THE "PANTHER" MOORED TO THE HEAVY HUMMOCK ICE.



ESKIMAUX MOTHER AND HER FAIR-HAIRED DAUGHTER.

LIST OF ILLUSTRATIONS.

	PAGE		PAGE
W ILCOX MOUNTAIN WITH A STORM-CLOUD	vii	28. AN ESKIMAUX GETTING READY FOR A SEAL HUNT, HIS TOUPEK, OR SKIN TENT ON THE RIGHT	28
THE "PANTHER" MOORED TO THE HEAVY HUMMOCK ICE	viii	29. THE "PANTHER" STEAMING UP THE SERMITIALIK FIORD TO VISIT THE GLACIS	28
ESKIMAUX MOTHER AND HER FAIR-HAIRED DAUGHTER	ix	30. THE GLACIER AS SEEN WHEN SAILING UP THE FIORD	29
HEAD OF AN ESKIMAUX MAN	x	31. VIEW LOOKING DOWN THE FIORD FROM THE TOP OF THE GLACIER	29
1. ICEBERGS PASSED NEAR THE NEWFOUNDLAND COAST	7	32. THE GLACIER AS SEEN FORCING ITSELF DOWN OVER LAND AND INTO THE WATERS OF THE FIORD	30
2. INSTANTANEOUS VIEW OF ICEBERGS, WHICH, FROM THEIR SIMILARITY AND BEAUTY, WE NAMED THE "TWINS"	8	33. SIDE VIEW OF THE FRONT OF THE GLACIER	31
3. CAPE DESOLATION	9	34. ONE OF EIGHT IMMENSE ICEBERGS, WHICH WERE DISCHARGED FROM THE FRONT OF THE GLACIER WITHIN 5 MINUTES	31
4. ICEBERGS SEEN NEAR THE COAST	9	35. THE STEAMER TAKING SOUNDINGS IN FRONT OF GLACIER	32
5. ICEBERG WHICH, FROM ITS PECULIAR SHAPE, WOULD BE SELECTED TO MAKE FAST TO	10	36. THE GLACIER AS SEEN FLOWING OR BEING FORCED DOWN BETWEEN THE HILLS	32
6. ICEBERG GROUNDED NEAR THE LAND	11	37. AN EXTENDED VIEW OF A SECTION OF THE FRONT OF THE GLACIER	32
7. ICEBERG, SHOWING THE ACTION OF THE WATER, WASHING AND WEARING IT INTO ITS PRESENT SHAPE	11	38. FRONT VIEW OF THE GLACIER	32
8. ICEBERG DRIFTING WITH THE CURRENT ABOUT TWO MILES THE HOUR, AND WAS 200 FEET ABOVE THE WATER	12	39. ICEBERG WITH AN ARCH IN IT	33
9. INSTANTANEOUS VIEW OF ICEBERGS	13	40. THE FRONT OF THE GLACIER, AS SEEN ON THE LAND, BEING FORCED OVER THE ROCKS	34
10. ICEBERGS	13	41. ENLARGED VIEW OF No. 33.	34
11. VIEW OF JULIANESHAAB	14	41*. VIEW OF THE SERMITSIALIK GLACIER	35
12. ESKIMAUX TOUPEK, OR SKIN TENT	15	42. ON THE GLACIER, LOOKING INLAND TOWARDS THE GREAT MER DE GLACE	35
13. GROUP OF ESKIMAUX WOMEN AND CHILDREN	16	43. VIEW IN THE FIORD OF WHAT MAY BE TERMED A JAM OF ICEBERGS	36
13*. CONCORDIA	16	44. THE PARTY IN CAMP ON THE TOP OF THE GLACIER	36
14. ESKIMAUX LANDING IN HIS KAYAK	17	45. VIEW ON THE TOP OF THE GLACIER	37
15. YOUNG ESKIMAUX WOMAN, ONE OF THE FAIR DANCERS	18	46. MOTZFELDT'S HOUSE, IN WHICH THE BALL WAS GIVEN	37
16. THE UGLIEST-LOOKING ESKIMAUX WOMAN WE FOUND	18	47. THE STEAMER AMONG THE ICEBERGS HEADING TO THE NORTHWARD	38
17. ESKIMAUX IN HIS KAYAK READY FOR SEAL-HUNTING	19	47*. SIDE VIEW OF THE GLACIER, WHERE THE MIDDLE IS FORCED OUT MORE RAPIDLY THAN THE SIDES	38
18. OOMIAK, OR WOMAN'S BOAT	20	48. APPROACHING THE COAST NEAR IVIKTUT	39
19. CHURCH AND RESIDENCE OF PASTOR ANTON	21	49. KUNAK MOUNTAIN IN DAVIS STRAITS	40
20. RUINS OF THE OLD CHURCH AT KRAKORTOK	22	50. IVIKTUT, WITH KUNAK MOUNTAIN IN THE DISTANCE	40
21. VIEW OF THE RUINS LOOKING ACROSS THE FIORD	23	50*. INSTANTANEOUS VIEW OF ICEBERGS ON OUR WAY NORTH	41
22. INTERIOR VIEW OF THE END OF THE CHURCH	23	51. KUNAK MOUNTAIN PARTIALLY ENVELOPED IN A FOG	42
23. A VIEW OVERLOOKING THE RUINS AT KARKORTOK	23		
24. A NEARER VIEW OF THE CHURCH	24		
25. ESKIMAUX IN HIS KAYAK OR SKIN BOAT	24		
26. PETER MOTZFELDT AND WIFE	26		
27. PETER MOTZFELDT AND FAMILY AT KRAKSIMIUT	27		

	Page		Page
52. KUNAK MOUNTAIN WITH THE COMMENCEMENT OF A FOG BANK	42	90. WILCOX POINT AND THE DEVIL'S THUMB IN THE DISTANCE, WITH RAFTED ICE IN THE FOREGROUND	70
53. STEAMING UP THE COAST	42	91. THE SOLITUDE OF MELVILLE BAY	70
54. INSTANTANEOUS VIEW OF ICEBERGS PASSED OFF THE COAST	43	92. VIEW OF THE DEVIL'S THUMB TAKEN ABOUT TWO MILES FROM THE BASE OF THE MOUNTAIN	70
55. VIEW SHOWING THE BEAUTIFUL FORMS IN VARIED SHAPES WHICH THE BERG ASSUMED	44	92*. THE DEVIL'S THUMB PARTIALLY ENVELOPED IN A FOG	70
56. INSTANTANEOUS VIEW OF AN ICEBERG	45	93. SURROUNDED BY THE WILDEST SCENE POSSIBLE TO CONCEIVE	71
57. AN ICEBERG ABOUT ONE HUNDRED FEET HIGH	45	94. SCENE IN CONNECTION WITH NO. 93, TAKEN WHEN AMONG THE BERGS.	72
58. ICEBERG WITH THE FIGURE OF A MAN CLINGING TO THE TOP	46	94*. THE "PANTHER" MADE FAST TO THE FLOE IN MELVILLE BAY	72
59. THE "PANTHER" PASSING UP THE COAST UNDER THE MIDNIGHT SUN	47	95. BESET BY THE ICE	72
59*. INSTANTANEOUS VIEW OF ICEBERGS OFF THE COAST AT MIDDAY	47	96. WHERE WE PATIENTLY WAITED AND QUIETLY HOPED FOR THE ICE TO OPEN	73
60. SVARTEHUK, OR BLACK HEAD	48	97. HARD AT WORK UNDER A FULL HEAD OF STEAM, TRYING TO ESCAPE BEING NIPPED	73
61. SANDSTONE ROCK AT THE ENTRANCE OF KARSUT FIORD	49	98. CASTLE BERG IN MELVILLE BAY, OVER 200 FEET HIGH	74
62. LOOKING DOWN KARSUT FIORD	50	98*. BETWEEN THE ICEBERG AND FIELD-ICE	74
63. CLIFFS SEEN ON THE SOUTH SIDE OF ÅRSUT FIORD, 3,000 FEET HIGH	50	99. THE "PANTHER" FAST IN THE FIELD-ICE IN MELVILLE BAY	74
64. ESAC'S HOUSE ON IGLOR AT THE RIGHT	51	100. BESET ON ALL SIDES, THE "PANTHER" REMAINED IN THIS SITUATION FOR THREE DAYS	74
65. ESQUIMAUX CARRYING HIS KAYAK TO THE WATER TO START ON HUNT	52	101. SECTION OF AN IMMENSE BERG, WHICH WAS NEARLY HALF A MILE IN LENGTH	74
65*. INSTANTANEOUS VIEW OF ICEBERG	52	102. THE STEAMER IN AN OPEN LEAD MOORED TO THE EDGE OF THE FLOE	74
66. SCENE ON OUR WAY TO UPERNAVIK	53	103. THE FARTHEST POINT REACHED	74
67. SOME OF THE INTELLIGENT INHABITANTS, MAN, BOY, AND GIRL	54	104. NEAR WILCOX MOUNTAIN	75
68. VIEW OF UPERNAVIK, THE MOST NORTHERN SETTLEMENT ON THE GLOBE	54	105. THE STEAMER UNDER WILCOX MOUNTAIN, IN THE ICE PACK AND HUMMOCKS	76
69. BERGS PASSED ON OUR WAY NORTH TO TESSIUSAK	55	105*. AMONG THE FIELD-ICE AND ICEBERGS IN AUGUST	76
70. VIEW OF THE HOUSE NEAREST THE NORTH POLE UNDER THE MIDNIGHT SUN	56	106. JANSEN AND HIS FAMILY	77
71. SCENE FROM BAFFIN ISLANDS, WITH ICEBERGS IN THE DISTANCE	57	107. JANSEN WITH HIS COMETICK, OR SLEDGE AND DOG-TEAM	78
72. ICEBERG WHICH WE NAMED THE "GLORY OF BAFFIN'S BAY"	58	108. PHILIP AND HIS FAMILY	79
73. THE "GORILLA ICEBERG"	59	109. DR. RUDOLPH, HIS WIFE, AND CHILDREN	80
74. SCENE IN MELVILLE BAY. ICE-PACK IN AUGUST	59	110. VIEW FROM UPERNAVIK LOOKING INTO BAFFIN'S BAY	80
75. THE MIDDLE PACK OF MELVILLE BAY, WITH A GROUP OF STRANDED BERGS	60	111. HANS, HIS WIFE, AND CHILDREN	81
76. OPEN LEAD IN THE PACK ON THE FOURTH OF AUGUST	60	112. AN ESQUIMAUX PET, A BOY ABOUT EIGHT YEARS OLD	81
77. THE PACK SEPARATING	61	113. AN ESQUIMAUX BURIAL GROUND	82
78. THE DEVIL'S THUMB, AS SEEN WHEN WE WERE COMING ROUND WILCOX POINT	62	114. VIEW OF SETTLEMENT AND HARBOUR OF GODHAVEN	82
79. THE "PANTHER" MOORED TO THE HUMMOCK ICE	63	115. GODHAVEN, AS SEEN FROM THE OPPOSITE SIDE OF THE HARBOUR	83
80. THE MIDNIGHT SUN IN MELVILLE BAY IN AUGUST	63	116. ESQUIMAUX IGLOE, OR WINTER HUT MADE OF TURF AND STONES	82
81. INSTANTANEOUS VIEW OF POLAR BEARS	64	117. THE CLIFFS ON THE OPPOSITE SIDE OF THE HARBOUR OF GODHAVEN, 3,300 FEET HIGH	84
82. NEARER VIEW OF THE POLAR BEARS	65	118. SOPHY AND HER SISTER MAREA	85
83. HUNTING BY STEAM IN MELVILLE BAY	64	119. ESQUIMAUX WOMEN	84
84. AFTER THE HUNT	66	120. ESQUIMAUX WIDE AWAKE	85
85. MOORED ALONGSIDE THE HUMMOCK ICE, NEAR A GROUNDLED BERG, TAKING IN FRESH WATER	66	121. ESQUIMAUX TOUPEK OR SKIN TENT	86
86. STEAMING TO THE NORTHWARD ON THE 7TH OF AUGUST THROUGH A LEAD IN THE FLOE AND AMONG THE ICEBERGS	67	122. THE LUTHERAN CHURCH AT JACOBSHAVEN	86
87. THE "PANTHER" TRYING TO FORCE A PASSAGE THROUGH THE FLOE	68	122*. THE COAST BLOCKADED BY ICEBERGS NEAR JULIANESHAAB	86
88. IN AN OPEN LEAD BETWEEN THE FLOE AND ICEBERG	68	123. SECTION OF ICEBERG, WHICH WAS BROKEN OFF FROM THE SIDE, AND WASHED IN RIDGES	87
89. THE STEAMER UNDER THE MIDNIGHT SUN	69	124. HOMEWARD BOUND	89
		125. SEALING VESSEL PASSING AN ICEBERG OFF THE COAST OF LABRADOR	89



HEAD OF AN ESQUIMAUX MAN.



THE ARCTIC REGIONS.

CHAPTER I.

ANCIENT GREENLAND.



PAPAL Bull given in the history of Pontanus, leads us to suppose that Greenland was known to the people of Europe prior to the settlement of the country by Eric the Red. Yet the date of the Bull may in course of time have been altered. We can, however, speak with certainty when we reach the history of Eric, who, at the close of the tenth century, sailed westward from Iceland, and in this desolate region fixed his abode. But before speaking of this event it may be useful to give a brief statement of the facts in connection with the previous settlement of Iceland.

Iceland was discovered about the year A. D. 860 by a Dane of Swedish descent named Gardar. The first Northman who settled there was Ingolf. He was, however, preceded by some Irish monks, who left the island when they found that they could no longer live there in peace.¹

Down to the year A. D. 1000 the people of Iceland held fast to the religion of Thor and Odin, in which they had been trained, though prior to that time a missionary had been sent from Norway for the purpose of converting them to Christianity. The chief missionary was one Thangbrand, a bad and violent man. The change which people underwent at that time was merely nominal. Christianity was adopted, under compulsion, at the Public Assembly, or Allthing, after which the people repaired to the hot springs, where they were baptised, reserving, however, the right to eat horseflesh, and expose infants, by which method they were accustomed to relieve themselves from the burden of rearing weak or unwelcome offspring. In the course of time they came to entertain truer ideas of the spirit of Christianity, which resulted in a more radical change in their lives.²

It was just before the change was made in the national faith that Greenland was colonized by Eric the Red, thus preparing a new field for the Christian religion in the lands lying at the west.

Eric having, in the year A. D. 982, been proclaimed an outlaw for manslaughter, sailed westward, determined to seek a home in the land said to have been seen by Gunnbiarn in the year 876, when he was driven to sea by a storm.³ It is related that he "set sail from Snæfellsjökul, and found land which from its height he called Midjökul, now called Blaaserk. Thence he sailed along the shore in a southerly direction, seeking for the nearest habitable land. The first winter he passed in Ericseya, near the middle of the east district. The following year he came into Ericsfiord, where he fixed his seat. The same summer he explored the western desert, and gave names to many places. The following winter he passed on a holm opposite Rafnsgnipa, and the third year he came into Iceland and brought his ship into Breidafjord. The land which he found, he named Greenland, saying that men would be persuaded to go to a land with so good a name."⁴

¹ See De Costa's "Pre-Columbian Discovery of America by the Northmen," p. xxiii. The tradition, stating that King Arthur of England invaded Iceland in the year 571 may be found in "Hackluyt," vol. i. p. 1.

² For an account of the introduction of Christianity and the lives of bishops in Iceland, see "Grouland's Historiske Mindermerker," and the account of Arngrim Jonas in "Hackluyt," vol. i. pp. 515-50.

³ For all that is known concerning Gunnbiarn's Rocks, see "Pre-Col. Div." p. 11.

⁴ *Ibid.* p. 15.

Snæfellsjökul is the last land seen when sailing west from Iceland, and Blaaserk, a name that signifies a *blue-shirt*, is the first high land seen approaching Greenland.

Of the position of the so-called east district it is not necessary here to treat. The old opinion that this district, which contained Ericksey and Ericksfjord, lay on the eastern coast of Greenland is now completely abandoned, it being proved beyond doubt that both the east and west districts, into which Greenland was anciently divided, were situated on the western coast.¹ Still, though certain that both these districts were situated on the west coast, we are nevertheless left largely to conjecture in fixing the sites of the various towns and villages that will hereafter be mentioned.

The history from which we have already quoted goes on to state that Eric afterwards raised an expedition composed of no less than thirty-five ships, and, about the year A. D. 985-6, sailed once more to found a permanent colony in Greenland. The fleet experienced much bad weather, and in the end all but fourteen vessels were either driven back to Iceland or lost in the sea. Those colonists who reached Greenland at once appropriated lands, occupying all the most eligible sites on the principal fiords and bays.² All this took place, as the Sagas expressly state, fifteen years before the establishment of Christianity in Iceland, which certainly was accomplished in the year A. D. 1000.

But now a new element entered into Greenland society. This was accomplished by Leif, the son of Eric the Red. In the year A. D. 999, Leif visited Norway, where Christianity had already been established, and, at the earnest solicitation of King Olaf, received baptism.³ He was afterwards persuaded by the King to undertake a mission to his kinsmen in Greenland, who were desired by King Olaf to accept the Christian faith. A brief account of this matter is given in the Saga of King Olaf,⁴ where we read that the King said to Leif: "'Do you expect to go to Greenland next summer?' 'That is my intention,' said Leif, 'if it is your will?' The King replied, 'I think it would be good, and you shall go there with my message, and introduce Christianity to the people.' Leif said that he would do so, but thought this work would be difficult to do in Greenland. The King said that he did not know of any one better able to do it than himself, 'and you will certainly succeed.' Leif said, 'It can only be because I have your good wishes.'"

In due time Leif sailed for Greenland to rejoin his family and execute the wishes of the King. We are told that "Leif landed at Ericksfjord, and then went home to Brattalid. He soon introduced Christianity and the Catholic religion, and gave the people King Olaf Trygvesson's message, and explained to them how much happiness and glory there was in this religion. Erick [his father] was slow to decide to give up his [pagan] religion. But Thorhild [his wife] soon gave her consent, and she built a church at some distance from the houses. This building was called Thorhild's Church. There she and the others who held to Christianity offered their prayers."

It appears from what is stated elsewhere that Eric yielded only after much persuasion, and we are left to infer that his wife's ready acceptance of the new faith caused some coolness between them for a time.

In this voyage to Greenland Leif was accompanied by "a priest and other religious men," the latter of whom were probably of the married or secular clergy. Their names, most unfortunately, are not given. It would be very gratifying to know the names of these, *the first Christian missionaries*, to whom we can positively refer in connection with the continent of America.

It is to be deeply regretted that our materials are so fragmentary and scanty. Much was doubtless written in Greenland, where, as expressly stated in the Saga of Thorfine Karlsefne,⁵ history was cultivated, the people in the winter season made historical recitation an evening pastime.

Still we know that the colonists in Greenland multiplied, accessions of both Christians and pagans being made from Iceland and Norway. It appears also that the profession of Christianity became very general, even as early as A. D. 1007; for when in that year Karlsefne set forth on his expedition to Vinland, there was but a single worshipper of Thor in the entire company of one hundred and sixty persons. During nearly the whole of this century there appears to have been an organized body that constituted the Church, having its priesthood and appointed services. Still there was no bishop to supervise the whole. The need of such an officer was felt,

¹ See Graah's "Expedition," *passim*.

⁴ Laing's "Heims Kringla."

² For the details see "Pre-Col. Dis." p. 17.

³ "Pre-Col. Dis." pp. 38, 39.

⁵ *Ibid.* pp. 18, 38, 39.

⁶ *Ibid.* p. 64.

yet it was not until the beginning of the twelfth century that measures were taken to secure a chief pastor. Writing of this period Professor Rafu¹ speaks somewhat as follows:—

At the commencement of this century churches had multiplied somewhat both in the eastern and western districts. The feeling of independence, the isolated condition of the various settlements, and the impossibility of gaining episcopal supervision from the Bishop of Iceland, all combined to awaken in the people of Greenland a desire for a bishop of their own. It is thought that, under the circumstances, they applied to Gissur Isleifson, formerly Bishop of all Iceland, but then bishop of the see of Skalholt, as in 1106 a separate bishopric had been erected at Holum. Most likely in mutual consultation with Sæmund the Wise at Odde, with Thorlak Runolfson and other confidential friends of Gissur. But, however it may have been, Eric Knupson was finally fixed upon as the proper person to discharge the office of a bishop in Greenland, he being a man of distinguished lineage through the Christian settler Oelyg of Eisinburg from the ancient Hersers of Sogn in Norway, and through Grimkel from Biorn Gullbere, who originally settled in Reikianess, Iceland. The charge of bishop was informally committed to him, when he repaired to Greenland, and, without consecration, but under the name of a bishop, superintended the church for several years. He afterwards returned to Iceland, where Thorlak Runolfson had been elevated to the see of Skalholt two years before.

To this worthy prelate, his equal in age and possibly his fellow-student, Eric presented his case, and was furnished with a letter of recommendation, with which he repaired to Denmark, where, in the beginning of the year 1121, he was formally consecrated to the sacred office by Adzer, Archbishop of Sund. He soon after resigned his work in Greenland and repaired to Vinland, of which circumstance we shall elsewhere speak.

Thus Greenland was once more without a chief pastor; but in the year 1123 a public meeting was called by Sakke Thorerson, one of the most distinguished men of that country, when he made known his views, advising the people to remain no longer without a bishop, but to take measures to have the office permanently filled at the earliest practicable day. This advice met the wishes of the people, who desired his son Einar to repair at once to Norway, where Sigurd reigned as king, and secure the desired head for the church. This was accordingly done, and in due time Arnald, an able clergyman of Norway, was consecrated and installed in the episcopal office to the satisfaction of the people of Greenland. All these events are related in the Saga of Einar Sokkeson.

It appears that Greenland became tributary to Norway in 1003, or about the time they embraced the Christian religion. In the reign of Magnus, 1256, they attempted to revolt, but five years afterwards were obliged to make peace, the Danish king Eric Glipping having, it is said, sent a force to Greenland to support the Norwegian authority, though Torfæus maintains that their obedience was voluntary, promising a small tribute, and agreeing to punish all murder, whether done in habitable or uninhabitable places, by Greenlander or Norwegian.

From that time they were governed by a king's deputy from Norway, according to the Icelandic law; and when an archbishopric was erected at Drontheim in Norway, the Greenland bishops became the suffragans of the metropolitan.

According to Torfæus the bishops of Greenland succeeded each other in the following order:—

1. Eric, who resigned the see of Greenland and went to Vinland in the year A. D. 1121.
2. Arnald, consecrated A. D. 1128, afterwards first Bishop of Hammer, Norway.
3. Jonas I. consecrated A. D. 1150.
4. Jonas II. consecrated A. D. 1188.
5. Helgo, consecrated A. D. 1212.
6. Nicholas, consecrated A. D. 1234.
7. Olaus, consecrated A. D. 1246. Under this Bishop, Torfæus says, three deputies of Greenland, Odd, Paul and Leif, either made peace, or submitted to the King of Norway. Olaus assisted at the consecration of Hakon, Archbishop of Drontheim.
8. Thorder or Theodorus, consecrated A. D. 1288.
9. Arno, consecrated A. D. 1314.
10. Jonas the Bald, consecrated A. D. 1343. Here the list of Torfæus ends, but Holberg, taking as his authority the Danish historian, Huitfeld:—
11. Alpho. The date of his consecration and that of the five following bishops is not known. It is said that in his day the native Greenlanders or Skrællings made their appearance.

¹ "Des Antiquaires du Nord," p. 381.

12. Berthold.

13. Gregory.

14. Andrew.

15. John.

16. Henry. Bishop Henry is said to have been at the assembly of the nobles called together by King Olaus at Nyborg in Fuenen in 1386, where he and other bishops procured several exemptions for the churches and monastic houses of Greenland.

17. Andrew, consecrated by Askill, Archbishop of Drontheim, A.D. 1408. It is stated that Andrew was consecrated because at that time no tidings had been received from Bishop Henry, owing to the interruption of communication between the two countries. Andrew was accordingly sent out to take his place on the supposition that he was dead. But Bishop Andrew himself was never heard from, and it is supposed that he either perished at sea, or was carried off by the same agent that destroyed the Greenland colonies.

We have some additional particulars concerning the condition and the ecclesiastical affairs of Greenland in a chronicle of one Ivar Bardarson, a crude translation of which, with some additions by a later hand, may be found in Purchas.¹ A copy of the original may be found in Professor Rafu's work.² From this chronicle we learn that the Cathedral church was at Garda. Near a town called Wartsdale was an abbey dedicated to St. Olaf and St. Augustine; and not far from thence was a cloister for nuns dedicated to St. Olaf. A costly church dedicated to St. Nicholas is also mentioned, though we must remember that the costliness of this church is to be gauged by the ideas and the amount of means possessed by the Greenland colonists at the time. According to Bardson quite a number of churches existed in Greenland at the time he wrote, when he himself lived there as the steward of the Bishop. But the *Grippla*³ says that there were twelve churches in the eastern district and four in the western. It also states that Garda was the episcopal seat, and that it was situated at the bottom of Ericsfiord. It also mentions the church dedicated to St. Nicholas, which is probably the same referred to by Bardarson.

The churches had considerable land attached, and the bishop had the exclusive control of the hunting and fishing in certain places, by which a revenue was secured for the support of religion.

Bardarson speaks of the situation of the different towns and churches, and notes the fact that the churches formed landmarks for sailors entering the harbour.

The religion taught was that of the Roman Church. Of the spiritual character of Christianity they, however, had but a poor appreciation at the best. At the first, the change of the hammer of Thor for the Cross of Christ was a mere formality, unattended by a change of character. But afterwards there was more or less improvement, and in course of time they doubtless compared well with the people in other parts of the world.

The ruins of churches remain to the present day, thus attesting the reality of their ecclesiastical establishments. The most celebrated ruin is that of the so-called Karkortok Church, near Igaliko, supposed to be the ancient Einar's fiord. This may have been the Garda Cathedral. It was of simple but massive architecture, the materials being taken from the neighbouring cliffs. Its length was fifty-one feet, and its breadth twenty-five. The north and south walls are four feet thick, while the end walls are still more massive.

Tombstones are also found, and the inscription cut upon one in Runic letter was as follows :—

"VIGDIS MARS DAUGHTER RESTS HERE.
MAY GOD GLADDEN HER SOUL."

Of the progress and decline of society in Greenland we have but a poor account, as much of the history of the period has perished. It is clear, however, that they were not inactive. Besides exploring the coast of America, they penetrated far into the north, maintaining a summer station in the region of Lancaster Sound, from whence it is recorded, July 25, 1266, they made an expedition into much higher latitudes.

Their permanent villages were probably scattered over a large extent of territory, the two principal bygds or districts being separated by a long barren waste. One very interesting monument which indicates the extent of their settlements was found by Parry in the year 1824 on the island of Kingiktovsok, near the modern Upernavik, lying in 72° 55' N. and 56° 51' W. The inscription in a translation reads as follows :—

¹ Purchas' "Pilgrims," vol. ii. p. 518. Also given entire in De Costa's "Sailing Directions of Henry Hudson."

² "Antiquitates Americane."

³ See "Pre-Col. Dis." p. 109.

"ERLING SIGHVATSON AND BIORN THORDARSON AND
EINDRÍD ODDSON, ON SATURDAY BEFORE
ASCENSION WEEK, RAISED THESE
MARKS AND CLEARED
GROUND, 1135.

There are various opinions in regard to the causes which led to the extinction of the Greenland colonies. It is difficult to say when the last communication was had with that country. There were rumours relating to Greenland as late as A. D. 1530, when Bishop Amund of Skalholt was blown upon the coast, and fancied that he saw the inhabitants driving home cattle. He did not, however, make any investigations, as a fair wind sprang up, of which he took advantage, and sailed for Iceland.

The last event known to have transpired in Greenland was a marriage ceremony performed in the Cathedral of Gardar by Bishop Andreas in the year 1406,¹ though trading voyages were occasionally performed as late as the middle of the fifteenth century.²

But whether the people of Greenland perished by the plague which devastated Iceland, died of starvation, or were annihilated by the natives, we cannot now determine. All three of these agents may have combined, in a measure, to accomplish this result. Ivan Bardson gives an account of an attack made upon the people of the west district by the natives, who carried them away into captivity. To avenge this injury the people of the east district appointed Bardson commander of an expedition against the natives, but when they reached the place where they usually lived the Skrælings were nowhere to be found.

And when Crantz went to Greenland he found what appears to be a tradition of this conflict between the natives and the Icelandic colonists. They told him that it came about in this wise: one of the *Kablunets*, as they called the Europeans, "mocked a Greenlander because he could shoot no birds. The Greenlander, to show that his arrow was not such a foolish wanderer, shot the scorner dead. This enkindled a war between them, in which the Greenlanders conquered at last and exterminated all the foreigners. This," says Crantz, "points to the destruction of the old Norwegians, upon whom they cast that odium, to ascribe their origin to dogs metamorphosed into men." Crantz (vol. i. p. 204) also says that there is a district in Ball's River still called Pissiksarbik, which means a place of shooting arrows, or a place of battle. The natives declare that it took this name from a fight which occurred here. Near by are the ruins of one of the Icelandic, or, as Crantz calls it, Norwegian settlements.

But whatever may have been the cause of Greenland's decline, the country itself was not wholly forgotten. Amongst the first to urge the re-opening of communication was Walkendorf, Archbishop of Drontheim, who died in the year 1521. Christian III. abrogated the decree of Queen Margaret prohibiting trade with Greenland without the royal permission, and encouraged voyagers. In 1578 Frederick II. sent out Magnus Henningsen, who, after coming in sight of the coast, turned back.

It was not, therefore, until 1721, when the missionary Hans Egede went out, that any practical measures were taken to demonstrate to moderns the reality of the ancient Icelandic occupation. His story, however, is too well known to need any fresh recital in this paper, which has been composed simply for the purpose of conveying some slight knowledge of the story of ancient Greenland.

¹ "Pre-Col. Dis." p. xxxiii.

² *Ibid.* Consult also the Introduction to the author's work on Ivan Berdsen, already referred to.





NO. 1. ICEBERGS PASSED NEAR THE NEWFOUNDLAND COAST.

CHAPTER II.

THE "PANTHER" LEAVES ST. JOHN'S—WE ARRIVE AT CAPE DESOLATION—EXPERIENCE A HEAVY GALE OF WIND—MAKE FAST TO AN ICEBERG—
LEAVE CAPE DESOLATION—TAKE AN ESQUIMAUX PILOT—ARRIVE AT JULIANESHAAB.



HE "Panther," a vessel of about three hundred and seventy-five tons register, steamed out of the harbour of St. John's, Newfoundland, about ten o'clock in the forenoon of July 3rd, 1869, with the United States flag flying at the foretopgallant mast, indicating that she was engaged on American service. In fact, it was this vessel which bore the party of adventurers whose story is partially illustrated by the photographic views contained in this volume.

The "Panther" was built expressly for the sealing service in the North Sea, and the best mechanical skill had been employed in her construction with reference to securing the utmost strength, which is absolutely needed in a region where the navigator must battle with ice in its angriest mood.

Her commander, Captain Bartlett, was a man young in years, but who had encountered all the severe experiences of the Labrador coast. Still he was unacquainted with the ice-throes of the Greenland seas. All, nevertheless, went forth in the full expectation of achieving ultimate success as regards the objects of the expedition for which the "Panther" had been chartered, the contract leaving the members of the party without responsibility for the ship, and perfect liberty to go whither they pleased, fog and ice permitting. Thus conditioned, the "Panther" steamed away, and, the weather being fine, the captain held to the northward, close in shore, running between Bacalou Island and the main land late in the afternoon. After passing Trinity Bay the course lay toward the "Bird Islands;" and while sailing this course our first night closed in.

Morning came, dull and grey, yet nothing of importance occurred, nor even for the next few days, except that a heavy north-east gale was encountered, during which some of the party, unaccustomed to the sea, paid the ordinary tribute to Neptune, vowing thenceforth to abandon his domains altogether. But fine weather came again upon the 9th, and with it the old cheerful tone.

As the storm-clouds and fog-banks cleared away, the wind went down, and the entire company appeared on deck admiring the icebergs and ice-floes of every form amongst which we had already arrived. Viewing the bergs, the imagination might conjure up almost anything wonderful and strange.

And far away on the eastern horizon was a low-lying blue cloud, which some thought another fog-bank; but the more experienced declared that it was land; more than that, the coast of Greenland. And so it was. As the sun went down the air became clearer, and a bold headland loomed up in the north-east,—the veritable "Cape Desolation" of "Old John Davis," so named by him in 1585, on account of its barren, blighted, and desolate aspect.

The air was so pure, and the refraction so great, that this bold headland, apparently only twenty-five, was actually more than *sixty* miles distant. But, failing to appreciate this truth, the "Panther's" course was not shaped, as supposed, for Julianeshaab. Nevertheless, the "idlers" turned in, cherishing the fond hope that another morning would find them safely at anchor in that port. Such was not to be the case. When daylight came again, the "Panther" was enveloped in a fog so dense that it was impossible to make out anything a hundred yards distant. Indeed, the flying-jib-boom-end could not be seen from the quarter-deck. Breakers could also be heard at times on every side, and it was evident that the vessel was either inclosed in a nest of icebergs or hemmed in by rocks; possibly both. As no bottom could be found with an ordinary lead-line the first supposition seemed to be the most correct. The utmost caution was now necessary, and the "Panther" moved at a low rate of speed backwards and forwards, changing her course frequently when warned by the dashing of waves, and then again lying still in a quiet sea, all hands eagerly listening to ascertain from which direction the next indications of danger would come.

Now and then the form of a lofty berg would loom through the fog, and, in the dim uncertain light, it



NO. 2. INSTANTANEOUS VIEW OF ICEBERGS WHICH, FROM THEIR SIMILARITY AND BEAUTY, WE NAMED THE TWINS.

seemed to be on the point of toppling down upon the decks. This state of things continued for nearly three hours; and it may well be imagined all on board gained a fair conception of the prospective dangers of the voyage.

About nine o'clock, however, the fog lifted a little, and the steamer was found inconveniently near a ledge of rocks; while, half a mile in shore, a lofty promontory rose to view. But what land was it? It certainly did not correspond to Julianeshaab; and as yet nothing but icebergs could be made out on either hand. To settle this question, the second mate was sent in with a boat's crew to look for the settlement, and bring off a pilot; the "Panther" meantime "holding on by," that is, keeping in sight of the rocky ledge referred to, both for the advantage of the position, and to guide the boat on its return.

Soon after the boat left, fog-banks again settled down upon the vessel, and, as anchoring was out of the question, her position was maintained by the sound of the surf, an occasional whistle being given to direct the boat upon her return. In about two hours it came back, the officer in charge reporting that he could find no traces of a settlement, nor anything to indicate the existence of human beings on the desolate and barren coast. Still, he thought there was an accessible harbour, where shelter might be found until the weather became more favourable.

As the sun approached the meridian, the fog again lifted, and the shore became visible. The boat was once more sent ahead to look for sunken rocks, while the steamer followed slowly. Finally, a snug cove was found, where, with both anchors down in thirty fathoms of water under the bows, and fifty-five fathoms under the stern, mooring lines could be taken ashore from the bow and quarter. This having been successfully accomplished, the fires were banked to be in readiness should necessity require it. Then, to the relief of all, the panting "Panther" was at rest.



NO. 3. CAPE DESOLATION.

Being so near the land the fog could not totally obstruct our vision, and a party of the more adventurous was soon organized for a visit to the shore.

Landing on the rocks immediately ahead, a tortuous path was pursued over the almost perpendicular cliffs, until an altitude of about twelve hundred feet was gained. Even then the climbers seemed almost as far from the summit as ever. From this position nothing definite could be ascertained, and the party returned, after four hours' weary work, having encountered a sharp hail-storm on the hills. Nothing remained now but to make the best of it. While the storm howled wildly outside, the hours passed pleasantly in the cabin, till at length all but the solitary "anchor watch," whose duty it was to report changes in the weather, had sought their rest.

July 12. When morning dawned the weather was somewhat clearer, but the gale was blowing with increased fury. Land could be distinctly made out four or five miles to the eastward, appearing like islands, or lofty peaks whose bases were hidden from view by the ice. About eight miles south-west, the inaccessible summit of Cape Desolation towered two thousand five hundred feet above the level of the sea, and by this landmark the position of the ship was determined. A melancholy satisfaction however, for, under existing circumstances, it was impossible to put to sea. The wind next hauled more to the eastward, and sent in a long, roll-



NO. 4. ICEBERGS SEEN NEAR THE COAST.

seen from the mast-head; but there was some doubt about being able to reach it, as there was an almost impassable barrier of small icebergs in the way. There was, indeed, a narrow passage between the bergs and the rocks on the starboard, but even there might be hidden dangers. It was at length concluded to adopt the old Arctic maxim,

ing swell, which put the hawsers to the severest tests, and brought the steamer's port side in dangerous proximity to the rocks. The risk hourly became greater, and late in the afternoon it was deemed advisable to look for safer anchorage.

Around a point to the westward, apparently smooth water could be

"that a ship may float where an iceberg can;" and preparations were made for getting under weigh. All the lines but two were taken in, and the port anchor raised. Then came the tug of war. The remaining anchor refused to leave its rocky bed. All of the means that seaman's ingenuity could devise, failed to start it; until, at last, steam power was called into play. By driving the vessel rapidly ahead, and then letting her drop astern, its hold upon the bottom was broken, and the anchor came up, its stock missing.

After some difficulty the Panther's head was turned to the westward, and in half an hour we were in smoother water. But the passage was a dangerous one, the ship having more than once felt the undertow of the breakers. We came so near the rocks that, literally, a biscuit could have been tossed ashore.

The remaining bower anchor was dropped in what seemed a well-sheltered harbour, sufficiently large to moor a thousand line-of-battle ships. And it was not difficult to imagine that some were coming in; for a number of bergs were drifting in the passages between the islands toward Cape Desolation, and their fantastic outlines bore a wonderful resemblance to the sails of ships, as they appeared in the pauses of the storm, or, later in the evening, shone and shimmered in the moon's pale rays.

July 13. This morning the gale had somewhat abated, but there was heavy surf rolling at the mouth of the harbour. It was therefore deemed unsafe to attempt to escape; yet prompt action was rendered necessary by an unexpected event. While plans were being discussed for passing the time, it was discovered that the steamer was dragging her anchor, and drifting rapidly upon a dangerous-looking nest of grounded bergs. More chain was paid out, but the anchor failed to take ground again, and upon sounding no bottom was found at one hundred and twenty fathoms. It was plain that the former anchorage had been upon a ledge or reef, from which the moorings had a dismal appearance, as the only ground-tackle left was a small stream-anchor and some kedges, all of which combined were not equal to one good bower.



NO. 5. ICEBERG WHICH, FROM ITS PECULIAR SHAPE, WOULD BE SELECTED TO MAKE FAST TO.

slipped. The fires, which had been kept "banked" all night, were immediately opened, and steam was made at once. In the meanwhile the crew were at work heaving the anchor. When it came to the surface, they found that one arm of the stock had been wrenched completely off, and that the other was so shattered as to be useless. This gave things

The only resource left was to make fast to an iceberg, or, failing in that, to keep under way with a low pressure of steam. Working ahead slowly, a favourable-looking flat-topped berg was selected, and a boat sent out with warps and ice-anchors; but on approaching it was for some time impossible to effect a landing, the ice being so smooth that no hold could be obtained for keeping the boat alongside while footsteps were cut with the hatchets. At length one of the crew, a bold Newfoundland sealer, warmed by repeated failures, finally threw a small ice-anchor far back upon the floe, and then, watching a favourable opportunity, sprang from the bow of the boat, and, by a desperate effort, succeeded in gaining a foothold. A hatchet was thrown to him, also a small line, and in a few minutes the boat was moored. Others then climbed to his assistance, and larger anchors were taken out with hawsers attached, and before noon the "Panther" was once more safe.

In the afternoon, while the carpenter was making new anchor-stocks, a large party went ashore, sketching, geologizing, botanizing and shooting. The sportsmen managed to bring down a few "Lumme" and eider-ducks, a species of game not very tempting to an epicure, but always palatable to the Arctic navigator, the more so if boiled five or six hours to expel the strong fishy taste and smell peculiar to most of the game in these regions. The photographers, too, were not idle. Taking advantage of the comparative quiet which was enjoyed under the berg's lee, they managed to take excellent views in all directions, but especially towards Cape Desolation, which was sharply and clearly defined against the western sky.

The dinner hour found all hands safe on board, and generally well pleased with the day's adventures, though earnestly hoping to be away on the morrow.

It is perhaps needless to say, that no traces of human beings or habitations had yet been discovered. As the country is not favourable to colonization, it is not probable that future adventurers will be any more hospitably entertained than were the adventurers of the "Panther."

July 14. Morning dawning fine and clear, and the swell appearing to have gone down outside, preparations were



NO. 6. ICEBERG GROUNDED NEAR THE LAND.

made for resuming the voyage towards Julianeshaab, some sixty miles to the eastward. At first it was plain sailing, the ship encountering only a hard knock now and then. But on getting out into the open water a long heavy swell set everything in motion. Lulled into a feeling of security by the comparative quiet of the last few days, trunks, boxes, books, bottles, had been left lying loose, and as the "Panther" met this swell they seemed endued with life. But a few minutes sufficed to secure everything for sea; and precisely at noon the course was shaped to the eastward, keeping from three to five miles off shore, and making frequent wide detours, in order to avoid heavy packs or crumbling bergs.

The scene was wild, strange, and magnificent; a summer's sun in the distance, shone out with the steady gleam of frosted silver. Not a breath of wind was stirring, and the deep blue of an Arctic sky was reflected in the water so strangely flecked with indescribable icy forms. None of the bergs were very large, but no two were alike, and as the "Panther" moved rapidly along between



NO. 7. ICEBERG, SHOWING THE ACTION OF THE WATER WASHING AND WEARING IT INTO ITS PRESENT SHAPE.

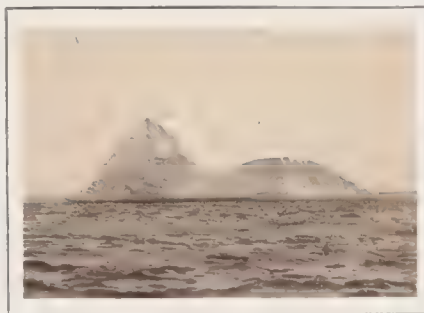
pouring down his rays with an intensity that rendered overcoats superfluous, yet away on the left hand stretched "the everlasting hills," bleak, brown, and barren, showing no signs of vegetation; their gorges and ravines filled with ice and snow instead of budding shrub and flowering plant, and their summits crowned with a glistening coronet that,

and amongst them, the scene could be compared to nothing but the quick-changing views of a kaleidoscope. Nor were the colours wanting to carry out this illusion. From dead white to glossy, glistening satin; from the deepest green to all the lightest shades; and from faint blue to deepest "lapis lazuli;" and again, as some lofty berg passed between us and the sun, its crest would be bordered with an orange-coloured halo, in which sometimes prismatic shades appeared. The wild, rugged shapes, indescribable and ever-changing, baffle all description, and nothing can do them justice but the sun-given powers of the camera. And even that must fail in part, for until re-touched by the hand the glorious phases of colour remain unexpressed.

And what a Babel of sounds rises from the eager group of spectators on the quarter-deck,—“Look there!” “How magnificent!” “See this!” “Do look at that!” “Can anything be more grand!” In fact, a stranger would have imagined that the ship's company had been resolved into a general admiration society, with the universe for its theme.

While this shifting panorama was thus developing new beauties, another was awaiting us that proved the crowning glory. For some time a faint yellow streak of light in the southern sky had been attracting our attention. This grew stronger in the afternoon, when the sun was falling rapidly. And many remarks were made and many conjectures ventured as to its possible origin; some bold spirits even advanced the idea of an “Aurora Australis” in the North. About 3 o'clock this phenomenon appeared well defined. It was of a bright orange hue at its base, which seemed to rest on a range of hills that took about an octant of the horizon at an elevation of twenty degrees, the light gradually fading until it blended with and was lost in the sky.

Hills there were none in that direction; and conjecture grew still more rife and less satisfactory. At length one of the party, Dr. Hays, remembered a similar effect on a former occasion, and directed his attention in the opposite direction. There, above the hill-tops, was a long, low-lying line of yellow light, gradually growing stronger as the oblique rays of the setting sun



NO. 8. ICEBERG DRIFTING WITH THE CURRENT ABOUT TWO MILES THE HOUR, AND WAS TWO HUNDRED FEET ABOVE THE WATER.

fell full upon it. He then found that this splendid manifestation was produced by the great Mer de Glace, the sea of ice that covers the interior of Greenland, and now gloriously lighting up the southern sky.

At four o'clock a sail was made out ahead, standing in shore, and we began to think that we were near our destination, naturally supposing

that the vessel in question must be bound to Julianeshaab. Yet the general appearance of the coast did not correspond with the descriptions. The vessel, a brig, kept on in shore; evidently mistaking us for an English whaler, and only indicating her nationality by setting the Danish flag. She was not near enough for us to make out her name, yet there was no doubt but that she was one of the vessels annually sent from Denmark with supplies for the colonists, who send in return the products of the hunt and the fisheries. It should be said here that these products form no small part of the Greenland revenue. The various Greenland settlements also furnish employment to a large number of Danish subjects, who are bound to serve the Government for a term of years. As a recompense, each year's service here counts for two; and, if possessed of merit, those who have stayed their full term in Greenland, are appointed to some better position on returning home, and take rank over those who are their seniors in time or actual service. Strange as it may appear, many of these Greenland employes, to whom "use has become a second nature," do not care to settle in Denmark when service entitles them to a home appointment. They are mostly men of education, and the names of Rudolph, Obirk, Hansen, and many others have become well known to the reading portion of the civilized world, through the published accounts of the American and English voyagers in search of Sir John Franklin; while the literature of their own land is indebted to them for much that is valuable in a scientific point of view. Surrounded by their families and the homeliest of home comforts they lead a happy and contented life in the Greenland settlements, seeming to care nothing for the outside world. Yet it must be admitted that the warmth and heartiness with which they greet an occasional visitor indicates that they are not insensible to the pleasures of society. Danish hospitality is proverbial, but here it is felt with double power. Once, or at most twice a year, the storeship comes out with supplies of both the necessities and

luxuries of life. Occasionally whale-ships touch at their ports, or some bold navigator bound still farther into the unknown beyond, tarries for a few days' rest. Besides these visitors there are none to break the monotony of their outward lives; and, as the official duties are not very onerous, there is all the more time left for study. "News," so considered, is far from new when it reaches Greenland; but Dr. Rudolph, at Upernavick, manages to maintain the semblance of old associations, after a very original plan of his own. He receives by the store-ship files of all the Danish daily papers for the previous year, and every morning with his coffee takes from the file papers of the same date, and goes through the form of discussing the current

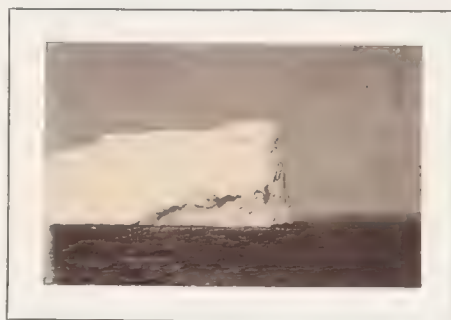


NO. 9. INSTANTANEOUS VIEW OF ICEBERGS.

us, and it appeared to have some connection with two black specks. The distance between us rapidly decreased, and soon the dip of paddles was made out. Then those of us who were not strangers to the region knew that they were the "kayaks," or the hunting canoes of the Greenlanders.

Coming alongside, a colloquy ensued; which was somewhat brief, as neither party knew the language of the other. Nevertheless we discovered from the chattering of the natives that Julianeshaab was a long way off, and not in the direction we had just thought of taking.

This conversation had been conducted by means of signs, and the frequent repetition of the word "Julianeshaab." In the same manner our strange visitors were given to understand that the services of a pilot were needed, but the difficulty was to get them aboard. The engines were stopped and one of the kayacks came alongside. A rope was then passed around it and hauled taut inboard so that the frail shell should not capsize. Its occupant next untied the apron from around his waist, grasped the rope firmly with both hands, carefully withdrew his feet from the "man-hole," and in a few seconds was standing safely on deck, not only an object of wonder himself, but staring in mute admiration at everything around him. His "kayak" was soon in on deck; and after that the same operation was gone through with the other. Having secured



NO. 10. ICEBERGS.

topics of the day.

But though in our narrative we have digressed, the brig referred to kept on her course, and we were preparing to follow in her wake, when two nondescript animals were seen approaching from the eastward. There was a great plashing in the water about a mile ahead of

our pilots the engines were set in motion and the "Panther" was on her way for Julianeshaab in earnest.

The first duty of our pilots was to gorge themselves with beef, pork, bread and coffee. After this they were furnished with new clay pipes and tobacco, which seemed to

"Lap them in Elysium."

Finally, they began to consider seriously the duty before them, and, by their direction the steamer's course was altered a couple of points to the Northward which headed her directly into what seemed a deep bay. To our remonstrances, such as they were, accompanied by gestures that the vessel ought to keep around outside of the

land, they returned grave head shakings, and gave us to understand that "go ahead!" was the word; and ahead we went into the evening's gathering darkness. The land being high and in the shadow, it cast a sombre hue over the water, which, in the twilight lost the deep blue tint, characteristic during the day, and at the same time a low-lying fog commenced rising from its surface, rendering every object still more indistinct. Yet on we steamed, though before closing in with the land the "Panther" was stopped by an ice barrier so closely impacted, that at first it seemed impossible to work through. But, by dint of hard boring and resolute driving into open "leads" whenever they appeared, we managed to get in to clear water again by about seven o'clock. This pack was composed principally of old floe ice, very much decayed and worn, interspersed with a few small bergs, which had apparently met between two tides or currents, and were partially embayed between two projecting headlands forming the entrance to the passage we were about entering. This was gloomy enough at first, but the moon soon came up above the hills, dispelling the fog-banks and throwing on the scene a lustre which can never be equalled in other climes, and which no pen or pencil can adequately describe or render. At this hour, in the



NO. 11. VIEW OF JULIANESHAAB.

north, everything assumes a different hue and form. Each crack or crevice is well defined and the curious contortions of the multi-formed ice stand boldly revealed, constantly changing as the steamer moves swiftly along through the still waters and the stiller night, giving scope for the imagination to picture forth all things wonderful and strange, whether it be gigantic form of man or beast, crenellated castle wall or donjon keep, or "cottage by the sea." Although the reality is wonderfully vivid and stern, when looked back to by memory it seems like some half-remembered dream.

On the occasion referred to, in the north-western horizon, where the sun disappeared, we could, though it was nine o'clock, distinctly see the shores upon either hand, or detect any obstructions that were on our course. Sometimes we were steaming through a bay three or four miles deep, entirely land-locked. At this point many surmises were made as to where egress would be found, when suddenly a cairn or pile of stones would loom up on the summit of some projecting point; and in a few minutes a passage was seen opening to the right or left; then the vessel's course is altered, and on she moves until another landmark indicates that it is time to shift the helm. These cairns or beacons have been carefully constructed under the supervision of the Danes, and are so arranged that any navigator, of ordinary judgment, can work his way through the most intricate passages with very little difficulty. In our own case, the officers of the vessel soon became so well versed in the

meaning of these signs that the pilots had little to do, except to smoke their pipes and take frequent luncheons, consisting of two or three pounds of fat pork and bread.

Everything progressed smoothly until shortly after midnight, when we came out of a long, narrow passage into an apparently land-locked basin, from which there was no visible outlet. To render matters worse, this basin contained a nest of icebergs, the largest, perhaps, not more than fifty feet high, but so near each other, and in some places in such close proximity to the shore, that it was difficult for the "Panther" to find a passage through. In fact, there were times when the vessel had not room to turn. It was, therefore, necessary to get out springs, and warp her head round to the only available point. This was not accomplished without some delay. At last, the word was given to "go ahead," and, grazing first one side and then the other against two converging bergs, some of whose ragged projections hung over the decks, we shot out clear of all immediate danger, and worked through a narrow passage between two islands into open water. It was plain sailing until about five o'clock, a.m. of the 13th, when our dusky pilots pointed to a narrow harbour on our port side, and exclaimed, "Julianeshaab!" In a few minutes we rounded to; then on the still morning air echoes rose amongst the hills as our cable rattled through the hawse-pipe and the anchor went down. Our salutation to the slumbering "town"



NO. 12. ESQUIMAUX TOUPEK, OR SKIN TENT, USED FOR CAMPING OUT WHEN MAKING THEIR JOURNEYS ALONG THE COAST.

aroused a countless number of dogs, who sent off their greetings in a series of long-continued howls. The natives of both sexes and all ages soon came pouring down from every direction over the rocks, until about two hundred were collected. Then suddenly was heard a wild song of welcome, so sweet and musical that all labour was for the time suspended, while our ship's company stood listening to the melody echoing across the waters,

"So wildly strange, so sadly sweet,"

that more than one of the party were deeply affected. The words were unknown to us, but the voice of song conveyed an unmistakeable sense, and found a responsive feeling in our hearts. These people had mistaken the "Panther" for the daily expected vessel from Denmark, but for all that we were none the less welcome.

As yet, we had seen nothing of the settlement which lay in the shadow of the hills; but, as the light increased, the outlines of the governor's dwelling and the store-house became visible. Next appeared the cooper's shop, and two or three small European-built houses, with their high, sharp peaks, constructed so that the snow slides off, instead of lodging on the roofs. Several irregular-looking objects which we at first took for masses of rock proved to be dwelling-places of the natives. Many of these huts were fitted with doors and windows, and, as we subsequently discovered, were quite comfortable, though many of the poorer kind were redolent of odours very unlike those of "Araby the blest."

A swift-rushing brook came down between the two parts of the village, one side of which was still partially

enveloped in darkness, but we soon discovered a rustic bridge crossing the stream; and, as the sun broke suddenly upon our sight through a gorge in the Eastern hills, his rays fell on the tower of a modest little church, under whose walls nestled a small parsonage; both being painted white, and the latter surrounded by a veritable garden, quite in keeping with the little house, but nevertheless a garden, and that, too, in barren Greenland. To the left of the parsonage was the cemetery, which completed the view. And thus, in all its glory, we saw "Julianeshaab," or "Julian's Hope."



NO. 13. GROUP OF ESQUIMAUX WOMEN AND CHILDREN.



NO. 13^a. CONCÓRDIA, ONE OF THE DANCERS, AND ALSO
ONE OF THE ARISTOCRACY OF KRAKSIMUT.



NO. 14. ESQUIMAUX LANDING IN HIS KAYAK, SHOWING THE WAY THEY OFTEN
TAKE OUT THEIR WIVES FOR A SHORT CALL.

CHAPTER III.

HOSPITABLY RECEIVED BY GOVERNOR KURSCH AND OTHERS—THE ESQUIMAUX WOMEN GIVE US A BALL—DR. HAYS FINDS AN
OLD FRIEND—KAYAKS AND OOMIAKS, HOW MADE.



IT is about one hundred years since the Danes made their first permanent settlement at this place. Its name was given in honour of the then Queen Consort; and in return for this compliment the colonists are said to have received many signal marks of royal favour.

The curiosity of the natives at our presence was unbounded. We were moored within easy speaking distance from the shore; so near to it, in fact, that the features of the wonder-stricken crowd upon the rocks, composed largely of women and boys, could be distinguished without any difficulty. A few *kayaks* were launched, and their occupants paddled around the harbour; but no one seemed inclined to come aboard, although we could see several Europeans passing to and fro on the shore.

After breakfast, we prepared to land and pay our respects to the Governor, or Inspector, as the Danes style him, and make known the object of our visit. The departure of our boat for the landing-place served as a signal for the admiring crowd on the rocks, and a general rush was made for the spot in order to assist at our reception. The scene was very ludicrous as they hurried along, shouting and laughing in the merriest manner possible, the parti-coloured boots of the women giving a picturesque variety.

At the wharf we were received by a fine-looking and intelligent Danish gentleman, wearing grey seal-skin pantaloons and vest, who announced himself as "Inspector Kursch." After mutual introductions, and explanations which were generally satisfactory, we proceeded to Mr. Kursch's house, surrounded by the motliest-looking crowd that it was ever my fortune to encounter; men, women, and children, all dressed so nearly alike, that it was amusing to hear the remarks made by some of our party who were unacquainted with the peculiarities of Esquimaux *habits*. Fortunately, my previous experience on the Labrador coast had made me more familiar with these things, but it will be remembered that several of our number witnessed them for the first time.

It is well that our walk to the house was a brief one, for the odour that rose on every hand was almost stifling. It was not exactly fishy, for that could have been borne, as we had become pretty well accustomed to it at St. John's; but this particular smell, coming from the refuse matter of the seal, was nearly overpowering; the more so, perhaps, as the sun was shining in full strength. Once in-doors, however, and everything was changed, for there we found perfect neatness, and many of the elegancies and luxuries of civilized life.

A couple of hours passed very pleasantly in conversation regarding Greenland traditions and antiquities;

after which lunch was served in a manner to indicate that the worthy Inspector was not unmindful of creature comforts. He then escorted us through the village; to this we felt a strong objection, arising from the causes already specified. But after we had crossed the brook, the difficulty subsided. Then we strolled along until the brook's source was reached, at a beautiful lake, extending back about a mile between the lofty hills, which gave this placid sheet of water the appearance of a veritable Scottish loch or tarn. The stream discharged through the outlet, made a sharp descent from the lake, which abounds in salmon trout, being full one hundred feet above tide-water. Wherever we went a crowd of dusky admirers followed, and as they bore the unmistakable odour of the seal, it was a decided relief to get back to the "Panther" again.

In accordance with a time-honoured custom at the Greenland ports, a grand ball, in honour of the "Panther's" arrival, was given in the carpenter's shop, which was largely attended by the beauty, fashion, and rank of the place. So densely crowded was the small room, nearly resembles the male apparel that it was difficult for the uninitiated to distinguish the sexes, which at first led to some laughable mistakes in the choice of partners, but generally speaking, everything went on without misadventure, the ladies acquitting themselves very well, especially in the waltz, schottische, and polka, having perfected themselves in this accomplishment under the tuition of the Danes.

There is one peculiarity about these Greenland balls which has the merit of novelty at least; it consists in this, that, although the visitors are invited guests, they are expected to supply the decorations and refreshments. In accordance with this regulation we sent ashore flags, candles, and a bag of coffee, which latter commodity the native women burned and ground as it was required.

Upon going ashore to attend decorated with ornaments of different colours. Many of the younger women were not only pretty in features, but were also finely formed, with delicately-proportioned hands and feet; and, as before said, they acquitted

about sixteen feet square, that the odour itself was very rank. Few of our party could bear it for more than a few minutes; but, with the assistance of the "Panther's" crew, who were less fastidious, the fun grew "fast and furious," and was maintained until long after dawn; which statement does not necessarily imply severe dissipation, since here we are so near the Arctic Circle, that when midsummer is close at hand, there is twilight in the sky all night long, ordinary print being easily read at midnight.

The ladies here wear no crinoline, and their dress so

the ball, we found the whole population in a state of unusual excitement, for it was seldom that they had so many guests at once or saw such extensive preparations for an evening's amusement. The female element predominated, and it is needless to say that all were arrayed in their best holiday attire. Gay colours and bright ribbons were the rule; pantaloons, jackets, and boots being profusely ornamented. It must be admitted, however, that the boots, made of various-coloured tanned seal-skins, shone most resplendent. White, red, and yellow were the prevailing tints, each garment being



NO. 15. YOUNG ESQUIMAUX WOMAN, ONE OF THE FAIR DANCERS.



NO. 16. THE UGLIEST-LOOKING ESQUIMAUX WOMAN WE FOUND.

themselves well upon the floor, their peculiar garb offering no obstructions in dancing or waltzing. I have seen many ladies at home who did not equal them in lightness and grace.

All preliminaries having been arranged by eight o'clock, the band, composed of three native musicians, two of them performing on violins, and the other beating time on a drum, manufactured from an old keg with seal-skin heads, struck up a lively polka, one of our number selected the oldest lady in the room as a partner, and the ball was opened in due form. Introductions were not required, and, after the first feelings of timidity or restraint wore off, there was little intermission in the fun until all went home in the morning.

Danish settlements and Esquimaux villages have been so much written about and frequently described during the last few years, that it is not necessary to enter into a detailed account of Julianeshaab, as they all have the same half-civilized, half-dilapidated appearance, combined with a variety of smells which once experienced can never be forgotten. Julianeshaab, however, is one of the oldest settlements, and being the capital or head-quarters of the Inspector of South Greenland, it is in many respects superior to some of the more northern ports.

Dr. Hayes was agreeably surprised at finding old friends and acquaintances in the persons of the Reverend Mr. Anton, pastor of the settlement, and his family who were residing here with him. This gentleman had formerly been stationed at Upernavick, and, in connection with Dr. Rudolph, the Inspector at that station, had rendered invaluable services to the Arctic Expedition of 1860-61. Under his direction a visit was planned to the old Northern ruins at Kra-kortok, about fifteen miles north-east from Julianeshaab.



NO. 17. ESQUIMAUX IN HIS KAYAK READY FOR SEAL-HUNTING.

As the ship's company could not be himself by taking a paddle in a woman's boat, as, by so doing, he would inevitably lose caste amongst hunters, and have the finger of scorn pointed at him by all classes during the remainder of his days. He goes alone in his "kayak," or man's boat, venturing out in the stormiest weather, hunting for the seal and walrus, and providing for his family in a manner that would do credit to the best-trained whale-boat's crew.

The first great object of an Esquimaux boy's ambition is to possess a "kayak" of his own; while the capture of a seal without assistance stamps him with manhood. He is then supposed to be capable of supporting a family, and may assume the responsibilities of married life, provided he can find one of the other sex willing to be stolen; for the Esquimaux damsel is particularly coy regarding the matters of courtship and matrimony. No matter how much she may be prepossessed in favour of her suitor, after the preliminary arrangements have been settled by the parents, the match must, ostensibly, be a forced one. When the enamoured swain has prepared his hut for house-keeping, he goes to demand his bride, and, though she may be prepared to return with him, etiquette demands that she hide herself, and, when found, make a show of resistance while being borne to the dog-sledge, which is in waiting to carry her away. There have been instances, however, where the damsel has either hidden herself so effectually that she could not be found, or struggled so heroically against her adverse fortunes as to come off victorious and remain at home. In North Greenland there is a tradition regarding an unwilling but spirited damsel, who, while being sought for, stole away with her lover's sledge, dog-team, and hunting gear, subsequently refusing either to return them or come back herself, which so mortified the poor fellow, in connection with the ridicule heaped upon him, that he likewise stole away, and was lost to the sight of his people for ever.

spared from duty, Mr. Anton tendered the use of his "Oomiak," or skin boat, used by him in making trips from station to station; the offer was gladly accepted. The "Oomiak" is a woman's boat; that is, the crew are always women, with the exception of the coxswain, who is generally a superannuated hunter. No male Esquimaux would ever think of degrading

Having diverged somewhat from the thread of our narrative in order to illustrate this peculiar phase of Esquimaux life, we will return to the subject of "Kayaks" and "Oomiaks," which, though constructed of the same materials, are different in form and devoted to opposite purposes. Both are simply light frames of wood covered with tanned seal-skin, but the "Oomiak" is open, and capable of carrying a dozen or more persons with a reasonable quantity of luggage, while the "Kayak" is completely covered, excepting a hole in the middle, with a raised rim about three inches high, to which is securely fastened an apron that the solitary occupant ties tightly around his waist in order to keep the water from pouring in and flooding his frail craft. The "Oomiak" is generally from thirty-five to forty feet in length, and about thirty inches deep. The width or breadth of beam will be five or six feet at the widest part, from thence it tapers off with a slight curvature towards the bow and stern, which are both sharp, and with nearly the same pitch. To construct this frame-work, five long strips of wood are first prepared by lashing short pieces together until the requisite length is obtained. For there are no single pieces long enough in all Greenland, and that which they do have either comes from Denmark or is procured from ships. These composite strips, being secured with thongs of seal-skin, are quite elastic, and readily bend to the required form. One strip is first laid for the keel, and then two others, about a foot longer, are placed parallel to it, the ends being sprung around to meet the two extremities of the main keel, where they are securely lashed to one another. Across these three strips are lashed short pieces placed at right angles about two feet apart. This completes the floor. Stem and stern posts are then put in position, being lashed to the ends of the main keel.

Next the other two long pieces, which are from twelve to eighteen inches longer than the outside strips at the bottom, in order to give the boat more beam at the top, have their extremities lashed to the upper part of the stem and stern posts, which forms the gunwale. The ribs are fitted with a jointed shoulder at either end, and lashed first to the crosspieces of the bottom

fitted to the gunwale, the whole being elastic and flexible.

The covering of this skeleton is made of tanned seal-skins neatly sewed together with sinew, the seams being protected by a sort of glue of reindeer horn scraped very fine and mixed with oil. This covering, when not in use, is generally taken off and spread out to dry, but when on the frame it fits like a glove, a lashing securing its upper edges to the gunwale. This, with the exception of oars, which are paddle-shaped and from six to eight feet long, completes the "Oomiak," a light, portable boat which two men can lift, and four carry to any distance with perfect ease.

The principal danger in using these boats is that the cover is liable at any time to be cut through by sharp pieces of ice; but if this occurs, a piece of seal or walrus blubber is forced into the rupture and kept there until mended. Another, but not common danger is, that the "Oomiak" draws very little water, on account of its flat bottom and light construction, thus presenting a high side, rendering it liable to capsize in a sudden squall. To obviate this it is always accompanied by a "kayak" which paddles up on the weather side, and its occupant bearing his weight on the gunwale of the "Oomiak" acts as a sort of shifting ballast to keep the latter on an even keel. In case of serious damage to the woman's boat, the "kayak" will convoy her to a place of safety, and then hasten to the nearest station for assistance.

The "kayak" itself is much smaller and lighter than the woman's boat, the usual length being from eighteen to twenty feet, and the breadth about twenty inches at the "pah" or man-hole, from which it tapers off sharp to either end, rising gradually until both bow and stern, which are protected with strips of bone, project several inches



NO. 18. OOMIAK, OR WOMAN'S BOAT, USED IN TRANSPORTING OR CARRYING THEIR TENTS, &c. UP OR DOWN THE COAST.

and then to the gunwale, which fits snugly on the upper shoulders of the ribs. This completes the frame, which has been constructed without hammer, nails, or tools of any kind, every part being fitted with precision, and secured by lashings in a manner that the most practised seaman could not surpass. It should also be observed that the thwarts or seats are

out of the water. Its depth is only ten or twelve inches, according to the size of its intended occupant, who can only sit in one position with his legs extended before him, while the rim of the man-hole is about on a level with his hips. The frame-work is, of course, very light, and narrow strips of bone are sometimes used in its construction instead of wood, and the skin covering is sewed on tightly in order to make it completely waterproof, as there is no possible way of baling it out in case of springing a leak. The whole weight is so trifling that a man can easily carry it in one hand; yet the hunter does not hesitate to launch out in the stormiest weather. Some of their performances are truly marvellous. The propelling power is a two-bladed paddle, which is grasped firmly in both hands, and dipped alternately, first on one side and then on the other, the "kayaker" maintaining his balance with surprising skill.

The feat which excites most surprise among European or American visitors is one that sailors call the "cantrum," from the fact that the occupant of the kayak capsizes it voluntarily, and goes over until his head is down, and the kayak bottom side up, when by skilful working of his paddle under water he rights himself on the opposite side from which he went down, thus performing an evolution which can be compared to nothing but the complete rolling over of a log in the water. This act, which seems almost incredible to those who have never seen it performed, is accomplished very rapidly, and may be witnessed at any Greenland port for the trifling compensation of a few biscuits, a little grog, or a handful of tobacco, articles of which the Esquimaux are specially fond.

In addition to hunting purposes, the kayak also serves as a dispatch boat when it is necessary to communicate with the out-stations found at intervals along the coast, care being taken always to locate them near some good hunting or fishing-ground. When sent upon these errands, two kayakers generally go together, both for companionship and safety. Their average rate of speed is about thirty miles per day, but there are numbers of instances on record where this has been exceeded when necessity required; one in particular;—on which occasion a solitary kayaker made the distance of three hundred and sixty miles in ten days, and that, too, on one of the most stormy and tempestuous portions of the coast, where but little shelter could be obtained from winds and currents, or short cuts made by taking passages between the islands.



NO. 19. CHURCH AND RESIDENCE OF PASTOR ANTON.



NO. 20. RUINS OF THE OLD CHURCH AT KARKORTOK, SHOWING ITS SITUATION AT THE BASE OF THE MOUNTAIN.

CHAPTER IV.

PREPARATIONS FOR A VISIT TO THE OLD RUINS AT KARKORTOK—THE SAIL UP THE FIORD—ARRIVE THERE, GET SKETCHES AND PHOTOGRAPHS
—DR. HAYS MAKES A CAREFUL SURVEY OF THE RUINS—RETURN TO JULIANESHAAB—ARRIVAL OF THE BRIG "TJALFE"—LEAVE
JULIANESHAAB—VISIT A CAVE AND ARE DISAPPOINTED—START FOR KRAKSEMIUT—REACH THERE.



SATURDAY, July 17th, dawned bright and clear, and at an early hour we were busily engaged with preparations for the start. Mr. Anton's "oomiak," *manned* with six stout, healthy, good-looking girls, all of whom were at the ball, came alongside, and was soon loaded down with a variety of things intended for the use of our party. A crew had been improvised for one of the ship's boats, in which were stowed the surveying and photographic instruments, with hunting-gear, provisions, and camp equipments. This boat carried also four passengers. In the oomiak were fourteen persons altogether, and about three hundred pounds of miscellaneous articles; so that the aggregate weight embarked could not have been less than one and a quarter tons. Yet with all this, the frail-looking craft did not draw quite three inches of water. When we were safely seated, the upward pressure on the bottom of the boat was so great that the skin covering swelled up between the stretchers, while through the semi-transparent sides we could distinctly see the water rippling. For a nervous man this would prove an unsatisfactory conveyance.

Feeling assured, however, by the presence of the owner and his fair but sturdy crew, the word was given to start; and away from opposite sides of the vessel shot out the two boats, of such different build and equipment. The "Panther's" boat pulled with a long, steady stroke acquired "on the Labrador;" while our Esquimaux crew pulled short and quick, rising a little at every stroke, and coming down upon the thwarts again with a "thud," a style peculiar to boatmen of the Mediterranean. Our party, however, did not go on the excursion alone, for on the immediate right was Mr. Anton's faithful henchman, Marcus, ready in his kayak for any service; while ahead, astern, and on each side, was a fleet of about fifty kayaks, their occupants vying with each other in speed and feats of skill, throwing their spears twenty yards or more ahead and recovering them without slackening their speed. Again they wheeled short around in pursuit of imaginary game, or darted forward in solid column. Occasionally some, more enthusiastic than the rest, gave a gratuitous exhibition of the "cantrum," as they moved along at a rapid rate.

These wild attendants, shouting at the top of their voices, and flying wildly about, reminded me of descriptions of the savage Cossacks of the Don, or untamed Arabs of the Desert, in their feats of horsemanship, though the scenes were as dissimilar as the elements on which they sported. One by one, however, they fell off to assume their daily duties of hunting or fishing, and in half-an-hour's time they were all gone, with the exception of a few who were to accompany us.

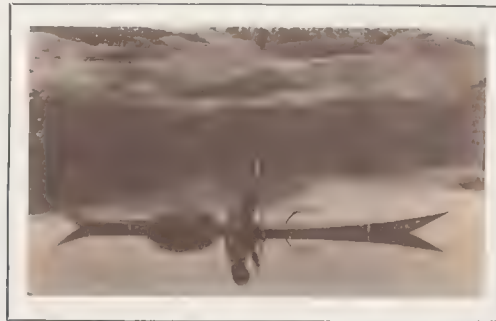




nearer home. It may seem strange to find these pests so near the Arctic Circle, but in the months of June, July, and August, when the short-lived vegetation here reaches its maturity, and commences to decay, these insects thrive, with flies and spiders also, and have been found in profusion so far north as latitude $78^{\circ} 30'$. The heat was somewhat oppressive, too, in the middle of the day, our thermometers indicating about $70^{\circ}+$ at noon, but these were slight drawbacks to the general pleasure experienced by all, and we returned to Julianeshaab at a late hour in the evening, somewhat fatigued, but well satisfied with the result of our day's work.

During our absence, the brig that we had seen when on the passage from Cape Desolation, came into port, and proved to be the vessel from Denmark, always so anxiously expected by the colonists, on the return of summer. This is the only regular means of communicating with home. In addition to the stores and supplies for general use, she also brings the mail, with its tokens of affection from relatives or friends. We found the more enlightened portion of the community busily engaged in the reception and discussion of the numerous and highly prized remembrances from their far-off homes. The Greenlanders, whose lives are bounded by the bleak world they dwell in, were equally joyous, although the brig only brought to them a prospect of fresh articles for trade. On the whole, the harbour presented, if possible, more animation than in the morning.

After the usual exchange of courtesies between the two vessels the Danish brig was found to be the "Tjalfe," Captain Amondson, a gentleman well and favourably known by the many kind attentions shown by him to Dr.



NO. 25. ESQUIMAUX IN HIS KAYAK OR SKIN BOAT.

Kane and his comrades, after their escape from the "Advance" in 1855. It will be remembered that this care-worn party had already engaged a passage for Denmark, intending to return home by that route, when the expedition sent by our Government found them.

The "Tjalfe" had stopped at one of the out-stations called Kraksimiut, to leave some articles for the sub-inspector, Peter Motzfeldt, and also to procure his services as pilot, he being thoroughly familiar with the Greenland coast from Cape Farewell to the Devil's Thumb. Peter is quite a noted character, having spent almost the last fifty years in this country. In his younger days he had been a sailor, and, while plying his vocation, he obtained a fair knowledge of the English language, which he has not forgotten. Coming out to Greenland in one of the Company's vessels, when about twenty-four years of age, he was induced to remain, and subsequently marrying a native woman, he adopted the country as his home. There are very few out-stations on the coast which he has not at some time had charge of; but he is now settled down for life, not having been home to Denmark for more than twenty-five years. Though seventy-four years old he is hale and hearty, not appearing to be more than fifty; and if no untoward event occurs he will probably live a hundred years.

I was very much interested in his conversation, which principally related to Greenland lore and legends, and had time permitted me, should have taken him as a pilot to the sunken Esquimaux villages near Cape Farewell. Some of these places were habitable within his recollection, but now they are entirely submerged, so that from a boat one may look down upon what was once a scene of busy life. This would have been a most interesting trip, but the season was rapidly advancing, and we were anxious to try issues with the ice of Melville Bay. Although we could not very well go back, his services were accepted to show us the way to a remarkable glacier near his home at Sermitsialik.

The weather was delightful. Not a breath of wind disturbed the surface of the water, scarcely a cloud was visible in the sky—a sky peculiar to the Arctic Regions, and unsurpassed by that of any country in the world. It was a day solely for enjoyment, and we made the most of it.

In the meantime, on sped the boats past the grand scenery that girded the fiord, along bold headlands clearly reflected in the still waters, and by deep, narrow fiords, whose dark recesses were yet covered with the snows of winter. Sometimes our stroke-oarswoman broke out in a wild, melodious chant, her companions joining in the chorus with voices of rare power and compass, awakening echoes far along the shores. When they tired, the rough fishermen in the other boat would strike up a rollicking sea-ditty, or windlass song, giving it with the vigour peculiar to their class, but so toned down in the distance that there seemed to be no lack of harmony. Take it all in all, I doubt was the work of human hands, relics of the old Northmen; the ruins of buildings erected by them more than nine hundred years ago. And this was "Krakortok," the seat of a once thriving and quite numerous colony. When our boats were hauled up, and I stepped within the ruins of the ancient church whose history was for centuries buried in the darkness of the past, it seemed as if I trod on hallowed ground.

As there was much labour to be performed, little time could be spared for sentiment, so our party at once proceeded to their allotted or self-selected tasks; sketching, photographing, surveying, cooking, or general research.

The ruins of nine separate dwellings or buildings could be distinctly traced, and a careful survey was made of them and their relative positions. There were numerous traces of other edifices, but they were generally so far gone to decay that only portions of their former site could be accurately distinguished. Yet originally they must have been built in the strongest manner. The walls and foundations were of well-quarried stone, regularly laid and from three to five feet in thickness. yet intact, as are most of the windows, except on the northern side, which has been more exposed to the weather. One remarkable circumstance in connection with this edifice, is the fact that the orientation is preserved, indicating plainly that it was the work of Christians. The east wall is the one most perfect, and still retains its arched window.

Photographs and sketches were taken from every possible point of view, and all of our work was conducted with expedition, the only drawback to that and our general enjoyment being the swarms of sand-flies and mosquitoes which proved intolerable; the latter not only larger, but also more venomous than those generally encountered

much if this fiord of "Igalliko," or the place of abandoned homes, ever resounded before with such unusual and diversified tones.

After a pleasant sail of nearly four hours, we approached the head of the fiord, where the land was more depressed, and in some places what appeared like rocks assumed a symmetrical form.

What we saw, however,



NO. 21. VIEW OF THE RUINS LOOKING ACROSS THE FIORD.



NO. 22. INTERIOR VIEW OF THE END OF THE CHURCH.

The church building proper is in a good state of preservation, owing doubtless to its superior construction, the walls being four feet and a half in thickness. These walls, enclosing an oblong space about sixty feet by forty in extent, still remain standing at nearly their original height. One of the gables remains almost perfect. The roof is gone, but the three doors are

his assertions, he drew largely upon imagination for details. As the narrative came down from one generation to another it naturally received additions, until the present story came to be accepted as a fact.

During the night we kept along at a moderate speed, not wishing to reach Kraksimiut until high water on the following day. At early dawn, Tuesday, we met an oomiak containing a portion of Motzfeldt's family on the way to meet him at Julianeshaab, and take him home. Although this boat contained ten persons, the youngest one an infant, they comprised only a fraction of the old patriarch's progeny; he having twenty-two in all, the youngest being but six months old. He had no less than six adopted children and ten or twelve grand-children. His present wife is a half-breed, many years his junior, and some of their daughters are quite pretty, having blue eyes and brown hair, while the rosy flush upon their cheeks indicated a semi-European origin. One of them, named Concordia, was far the fairest and handsomest specimen of her race that we met with on the coast, and, being as modest as she was pretty, became a favourite with us all.

Keeping on our course, Kraksimiut was soon reached, and the worthy Peter did not fail to show the most earnest, hospitality in welcoming us to his domain.



NO. 26. PETER MOTZFELDT AND WIFE.

Sunday, July 19th, was more a day of rest at Julianeshaab than in many places where greater claims are made to Christianity. Not a kayak was seen putting out to sea, nor did any one think of performing manual labour ashore. Service was held in the chapel. Many of us attended, though, of course, the language was Danish. Doubtless the music and the pretty faces had their attractions as in other lands. Some of the party, however, spent the day in climbing the hills, others engaged in fishing in a beautiful little lake that stretches back between the town.

Late in the afternoon, oomiaks and kayaks began to come in from all directions, as the news of the "Tjalfe's" arriving was borne to them, seemingly on the wings of the wind. Most of these new-comers hauled up their boats, and pitched summer tents in a beautiful little valley on the north side of the harbour, which at the time of our arrival was wholly untenanted, but now soon swarmed with an active and noisy population, whose wonder was excited to the highest pitch, at seeing two vessels in port at once, and one of them a steamer.

As we intended to sail on the morrow, Sunday evening was spent in taking leave of our good friends, Mr. Kursch, the governor or inspector; Mr. Anton, the pastor and his amiable family; and Captain Amdonsen;—gentlemen who had vied with each other in rendering our stay agreeable; showing satisfactorily that the Danish reputation for hospitality does not diminish in these icy regions.

Monday was bright, clear and beautiful; and, after a parting breakfast ashore, where the luxuries of fresh beef, milk and salmon trout abounded, the "Panther" once more resumed her course, this time under the guidance of Motzfeldt, and escorted by nearly every available craft in the harbour, whose occupants maintained their mimic sports for our amusement, until steam proved superior to muscle, and they fell astern. Our crew left behind them a well-earned reputation for generosity, and we looked upon this demonstration as an attempt on the part of our late entertainers to tender us the most magnificent ovation in their power.

A few miles from the harbour our steamer delayed, in order that we might examine a remarkable cave in one of the hills, said by some of the natives to be infested by wild beasts. Others maintain that it is the entrance of a subterranean passage leading to a deep ravine on the shores of the lake at Julianeshaab. Whichever or whatever it might be, we determined to solve the mystery; and, in accordance with this resolution, a party of twenty landed, armed and equipped with guns, revolvers, axes, crowbars and torches. The entrance to the cave was about six hundred feet above the water, and in ascending our energies were taxed to the utmost. In some places the rocks were nearly perpendicular, and if the feeling of pride had not been involved, I fear that more than one of the party would have turned back disheartened before the cave was reached. Success at length crowned our efforts, and we met with a magnificent disappointment. This vaulted cave was simply a crevice in the rocks, about sixty feet high at the entrance, and terminating abruptly at the distance of less than one hundred feet. Our tools, weapons, and implements were needless, and the entire cave could be seen without the aid of a single torch. One reward of our persistence, however, was the splendid view in all directions. Away to the northward could be seen ancient Krakortok with the great "Mer de Glace" in the background, opposite was a grand panorama composed of deep fiords, rugged hills and incipient glaciers, while far to the south extended the ocean, dotted with innumerable bergs that glistened like burnished silver in the rays of the setting sun. The "Panther," now almost at our feet in the shadow of the cliffs, seemed no larger than a cockle boat, and the men upon her decks appeared like pigmies. I could have remained there wrapped in admiration for an indefinite length of time, but my companions began to give sundry plain hints about dinner, and I yielded. We made a rapid descent, gained the vessel, and resumed our voyage.

Instead of pursuing the tortuous route we had taken when coming in, Motzfeldt kept out in the open sea, and nothing of particular interest came within sight except two enormous whales, the only whales of this species that we saw.

After dinner our pilot entertained us with an account of a wonderful subterranean lake situated somewhere on the southern coast. The entrance to this lake is through a long and dismal cavern in the rocks, but on emerging from it, the adventurer's boat comes suddenly upon a broad expanse of pure, placid, and fathomless water, extending further into the bowels of the earth than any one yet has ever dared to venture, although it is said the light of day is perpetual there. Motzfeldt had never visited it himself, but had no doubts of its existence, as his reports were obtained from old Esquimaux hunters whose veracity was unquestionable. My own opinion is that the story rose from some roving kayaker having found a "crevasse" or crack in a glacier, into which he ventured until outside objects were excluded from his view; and upon returning, there being no one to dispute

phenomenon was finally accounted for by observing that many of the miniature bergs drifting down with the current contained large deposits of light-coloured clayish soil, or silt, which was continually being washed away, thus affecting the colour of the water.

The head of the fiord was soon made out, being bounded, apparently, by a fleecy cloud. But as the distance decreased, the cloud developed itself into an icy barrier, the glacier of Sermitsialik, a spur of the great "Mer de Glace," which covers the main portion of Greenland from Cape Farewell to Cape Constitution, its supposed northern extremity. By this computation it is more than twelve hundred geographical miles long; while its breadth and depth are entirely unknown.

Having a number of unsophisticated Esquimaux aboard, advantage was occasionally taken of their presence to perpetrate a practical joke, such as collecting

place of supposed safety. These, and other pranks not necessary to particularize, were mostly the work of our Captain, who, notwithstanding the supposed dignity of his position, was as full of fun as any school-boy enjoying his holiday.

In steaming up the fiord we kept nearly in mid-channel until the glacier was only two or three miles distant, when the "Panther" veered towards the northern shore in search of an anchorage. Not at first finding any suitable place, we held on up to within a few hundred yards of the glacier. Then, turning short to starboard, we skirted along the front of the icy barrier to its southern extremity, thus gaining an excellent view of its whole sea-line.

This line, following all of its sinuosities, is about two and one-half miles in extent, its centre projecting out into the bay at an angle of

five feet in height, with countless irregularities, forming weird and fantastic shapes, which appear like the work of some Titanic sculptor, and affording fancy a full scope. Forms resembling those of animals, birds, and fish, with strange contortions of "the human face divine," could be readily traced, and the artist might there find subjects of study for a lifetime.

The upper surface of the glacier, instead of being smooth, or having simply few irregularities like most other glaciers, is broken up into innumerable peaks, with narrow, deep crevasses between them, across many of which a man could stand astride, and view below him a wedge-shaped chasm one hundred feet or more in depth. A

them around the smoke-stack, that being the warmest place on deck, and then sounding the whistle over their heads with its most unearthly shriek; or, enticing them down into the engine-room, and when their attention was engaged in different ways, suddenly throwing open all the furnace doors, so that the light of the fires would strike upon them instantaneously; in either case creating a perfect panic, and rush to a



NO. 28. AN ESQUIMAUX GETTING READY FOR A SEAL HUNT, HIS TOUPK, OR SKIN TENT ON THE RIGHT. THEY OFTEN TAKE THEIR FAMILIES AND CAMP OUT ON THE COAST IN THIS WAY.



NO. 29. THE "PANTHER" STEAMING UP THE SERMITIALIK FIORD TO VISIT THE GLACIS.

nearly 145 degrees. This is caused by the retarded motion of the glacier at its sides, where it comes in immediate contact with the uneven surfaces and angles of the rocks which hem it in, thus allowing the centre a more uninterrupted flow.

From the water's edge, it presents a nearly perpendicular wall, varying from one hundred to two hundred and seventy-



NO. 27. PETER MOTZFELDT AND FAMILY AT KRAKSIMIUT.

CHAPTER V.

VISIT KRAKSIMIUT—THE "PANTHER" AGROUND—LEAVE KRAKSIMIUT TO VISIT THE GLACIER—ARRIVE AT THE SERMITSIALIK GLACIER—ITS APPEARANCE—COMMENCE SKETCHING AND PHOTOGRAPHING—DR. HAYES AND CAPTAIN BARTLETT CROSS THE GLACIER—DISCHARGE OF ICEBERGS FROM THE GLACIER—NARROW ESCAPE OF SOME OF THE PARTY FROM DROWNING—SURVEYING PARTY ATTACKED BY MOSQUITOS.



TOGETHER Motzfeldt's chosen abiding place, Kraksimiut, was not much to boast of, being situated on a small rocky islet. Peter's house was the only thing that bore the least semblance to civilization, but here he manages to enjoy life. Scattered among the rocks were several Esquimaux huts, containing, all told, a population of perhaps one hundred and fifty persons, who were under Peter's charge, and no petty prince could be prouder than he.

Owing to some misunderstanding on the part of our captain, the "Panther" did not anchor at the place intended, and when the tide went down her stern grounded on a rock, and we were detained several hours longer than we anticipated. Although the vessel was brought three feet by the head before the tide rose again, no damage ensued.

This delay was not altogether time lost, as the photographers took their instruments round to the outer part of the island and obtained some excellent views of the countless icebergs that were drifting out to sea, and I secured some fine studies for future paintings. It also gave the inhabitants, who were more wonder-stricken than the people at Julianeshaab, an opportunity of gratifying their curiosity. No steamer had ever visited this out-of-the-way place before, and the "Panther" was a mystery; then again, what was her mission? They saw that she was neither a trader nor a whaler. What, therefore, could the appearance of this strange craft mean? I doubt very much if their minds are even now perfectly satisfied upon the subject.

The tide came in at last, and the "Panther" was relieved from her unpleasant position, and we were able to get away from Kraksimiut at three o'clock, p.m., Tuesday, July 20th, bound for Sermitsialik. We had on board several of Motzfeldt's family, and were accompanied by some fifty other natives in their own boats.

After following a tortuous course among the islands for eight or ten miles, not unattended with danger, the fiord leading to the glacier was entered. This fiord was from two to four miles in width, and bordered with lofty rugged hills, which in many places were wholly inaccessible to human footsteps and even difficult for the sure-footed rein-deer. Although it was now midsummer many of the gorges and ravines were filled with impacted drifts of the past winter; while incipient glaciers were cresting many of the ridges. Strangely in contrast were the torrents and cascades from the melting snows now seen pouring down on either hand.

While steaming up towards the glacier, a strong current was met. It was also noticed that the water changed in colour from dark green to a milky white. The latter circumstance gave rise to many conjectures, but the

Finding a good position, the photographers commenced operations; while a party of eager sportsmen started in pursuit of game, but did not find much to reward them for their toil. After breakfast the labours of the morning were resumed, and a beginning was also made with reference to surveying the fiord.

Later in the day the sun shone out with great force, and his power was soon illustrated on the glacier, first by the numerous cascades that came pouring down over its edge, and afterwards by huge masses of ice, some of them hundreds of tons in weight, breaking off and falling into the water with an almost deafening roar, at the same time flinging sheets of spray high into the air, raising a swell that almost drove the ship from her moorings.

It was also noticed that the current flowing from our sub-glacial river was much stronger than in the morning, and thus our conjectures became positive assurances. The snow melting on the high hills came down in a thousand streams on either side, and these, joining with the waters caused by the constantly melting surface of the glacier, worked their way down through the countless crevasses, to the rocky bed beneath; and, following



NO. 32. THE GLACIER AS SEEN FORCING ITSELF DOWN OVER THE LAND AND INTO THE WATERS OF THE FIORD. THE GLACIER SEEN AT THE LEFT ON THE LAND IS MUCH FINER RENDERED IN THE LARGE UPRIGHT VIEW, NO. 40.

its irregularities, finally wore a channel out into the fiord. It being deemed unsafe to remain longer at this anchorage, preparations were made for removing to the other side of the fiord.

Before leaving, an incident occurred which illustrates the danger of approaching too near a glacier at this season, when, owing to the summer heat, it is liable at any time to sudden disruption. There were several remarkable caves opening into the glacier directly from the land, and as they presented a singular phase of Arctic scenery, I was anxious to procure photographic views of them. To accomplish this, the photographers prepared their instruments, and, accompanied by some of the young gentlemen bound on a gunning expedition, started for shore in one of the ship's boats. The coxswain waiting for a favourable opportunity, at length pulled in to land his party, and everything was progressing favourably, when suddenly, three large masses of ice, the smallest nearly as large as the "Panther," broke from the glacier at a place about four hundred yards distant. The coxswain saw the danger, and was anxious to get the boat off and head her to the coming "rollers" produced by the falling of the ice, but there were so many articles to be removed and carried up out of harm's way that the boat was caught in the breakers. At first it was in danger of being dashed upon the rocks, but by taking advantage of the undertow, after the first wave came in she was at length pushed clear, and rode out the

fall into one of these would certainly prove fatal. Many of these crevasses or cracks extended from the top of the glacier down to and below the water's edge farther into the mass than the eye could reach. As subsequent events proved, it would not be safe to attempt penetrating their recesses, which gradually changed in colour from a light blue to a beautiful sea-green.

In steaming across this fiord, the out-running current swept our vessel down at the rate of three or four



NO. 30. THE GLACIER AS SEEN WHEN SAILING UP THE FIORD, SHOWING ITS WALL OR FRONT, AND ITS TOP LOOKING INLAND.

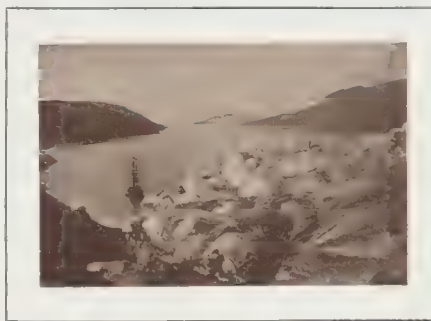
knots per hour. It was, therefore, necessary to keep well headed up, especially near the centre and southern side. This caused much surprise at first, as the ice-barrier seemed impenetrable, but the cause of the current I shall presently have occasion to explain.

About two hundred yards from shore, and at nearly the same distance from the glacier, good anchorage was at last found in twenty fathoms of water, where everything appeared safe, and the anchor was dropped; but in order to be prepared for any unforeseen emergencies, the fires were kept banked, so that steam might be got up on the shortest notice.

In fact, this was our custom all the time we were on the coast, except for a few hours at Julianeshaab, where it was necessary to make some slight repairs to the boilers.

Now, here we were lying under the shadow of hills from twelve to fifteen hundred feet in height, and which rendered the position somewhat gloomy, as com-

Captain Bartlett went in one of the ship's boats to the other shore in search of a better anchorage; and, having satisfied themselves upon that point, landed, and followed the line of the glacier a couple of miles up the valley, then ventured on to it, and finally crossed over to our side, having previously sent back their boat. This was an undertaking of no ordinary risk and danger, but was fortunately accomplished without accident. They reported that the glacier rises gradually for about three miles, then slopes away to nearly the same distance, when the ascent commences again and continues until the great sea of ice, of which this is merely a tongue or arm, is reached, some ten miles distant.



NO. 31. VIEW LOOKING DOWN THE FIORD FROM THE TOP OF THE GLACIER, SHOWING THE ENTRANCE FROM DAVIS STRAITS.

pared with the opposite side of the fiord, where the sun yet shed a gentle light upon the rocks and ice. It being now seven o'clock in the evening, we prepared for the night, and all but the watch turned in to take their rest, expecting to have a busy day on the morrow.

Wednesday, July 21st. Early on this morning every one was stirring. Dr. Hayes and

Meanwhile the roaring continued, and in a few seconds more a section of the glacier's front about one third of a mile long, and perhaps a sixth of a mile wide, was in motion, swaying backwards and forwards, gently at first, and then with an increased thundering that was heard at Kraksimiut, about fifteen miles distant in a direct line plunged bodily into the sea. The whole mass was at once submerged, but soon re-appeared, rising until its summit was at least two hundred feet above the water; while from its rugged and uneven sides poured a thousand streams and cascades which, combined with the swaying motion of a new-born berg, gave it the appearance of some mighty sea monster shaking his shaggy head.

The swell caused by this avalanche was tremendous, the surf breaking completely over rocks thirty and forty feet high landward of the "Panther," and seriously endangering her safety, although she lay more than a mile and a half from the point of disruption.

An hour elapsed before this detached portion settled quietly down. When it finally lay still it was about one hundred and fifty feet high and four or five hundred feet in length. But it did not continue to hold together



NO. 35. THE STEAMER TAKING SOUNDINGS IN FRONT OF THE GLACIER. CAPTAIN BARTLETT FINDING THE WATER 500 FEET DEEP, MAKING A SOLID WALL OF ICE, TO BE SEEN IF THE WATER WAS AWAY, OF BETWEEN 775 AND 800 FEET HIGH.

long, for, from some unknown cause, perhaps on account of touching the bottom, it broke into three large pieces and numberless small ones. The larger fragments were from fifty to seventy-five feet in height, while the whole surface of the fiord for three or four miles was covered with pieces of all shapes and dimensions, from a few pounds, to several hundred tons in weight; all quietly drifting out to sea with the tide.

We suppose that the fall of the pinnacle referred to, which may have been ten thousand tons or more in weight, gave a shock that helped to bring on the final crash, which I witnessed from an elevated position on shore, nearly at a right angle with the point of separation. Though imperfectly described here, the scene is indelibly impressed upon my memory.

This experience explains, also, how bergs, sometimes found far out at sea, have tunnels extending through them, tunnels, too, that are frequently many feet above the water-line. I have already referred to the cracks or caves opening inward from the face of the glacier, and also to the crevasses upon its surface. Now, when the berg breaks off in the manner described and floats away, the heaviest and largest part goes under water, so that the former position of the ice when *in situ* may become reversed, and the previously vertical cracks lie parallel with the surface.

remaining rollers in safety. Not so fortunate were the shore party. Before they could carry half of their implements up the hill-side, the surf came dashing in to a height of twenty feet, and, breaking, completely enveloped them in a cloud of foam and spray which recoiled with such force, that it was only by the strength of sheer desperation that they were able to cling to the rugged rocks. Fortunately no lives were lost, but the boxes containing plates for negatives and the jars of chemicals were utterly destroyed. The party returned wetter, if not wiser men, and as it was not deemed safe then to renew the attempt in photography, we deferred it to another time, when the effort was completely successful.

We therefore improved the opportunity to get up the anchor, and steam away to a more sheltered location at least a mile from the glacier, and sufficiently far, as we supposed, to avoid the possibility of danger, no matter how great the ice-throes or convulsions might be. The



NO. 33. SIDE VIEW OF THE FRONT OF THE GLACIER, ABOUT 100 FEET ABOVE THE WATER.

hills on this side of the fiord were higher than upon the other, but not so precipitous, and there was a belt of low-land between them and the shore which was in some places quite marshy, and densely covered with nearly all the known varieties of Arctic vegetation. Rivulets and cascades innumerable were pouring down from the melting snow, and immediately astern was a torrent twenty feet wide rushing through a gorge whose bottom inclined at an angle of about thirty degrees. This torrent, as we subsequently discovered, had its origin in a small mountain lake.

While lying at our second anchorage we witnessed one of Nature's throes, technically termed "calving," that is the breaking off of a large section from the glacier, which then becomes an iceberg.

At first we heard a premonitory growl or moan. This is generally given forth by the glacier previous to a heavy discharge of its surplus ice, and attention was immediately directed towards the point from whence the warning came. But, strange to say, no disruption appeared in progress. One of the highest peaks of the irregular surface



NO. 34. ONE OF THE IMMENSE ICEBERGS, WHICH WERE DISCHARGED FROM THE FRONT OF THE GLACIER WITHIN FIVE MINUTES. THIS WAS GROUNDING IN NEARLY 500 FEET OF WATER. THE LARGE MASSES SEEN ON THE SIDE NEAR THE WATER, SOME OF THEM FIFTY FEET THROUGH, WERE CAUGHT AND REMAINED IN THIS POSITION, WHILE THE BERG WAS ROLLING.

about 500 feet back from the face of its sea-wall, had, however, suddenly disappeared, and we concluded that the fall of this mass into one of the wide crevasses caused the mysterious sounds just heard. But there was scarcely time to consider the case when there came another roar, resembling a thousand long-continued, distant thunders. In a few seconds the water commenced boiling up from the bottom in front of the glacier like a mighty cauldron, into which great masses of ice began to fall, and these as they plunged, sank and rose again, whirling around one after the other in erratic courses.







Late in the afternoon, when our tormentors had partially disappeared, the shore parties were able to resume and complete their labours; and during the evening all hands were busily engaged in making preparations for climbing the glacier, and having a pic-nic there on the morrow, which was destined to be the last day of our sojourn at this place.



NO. 41. ENLARGED VIEW OF NO. 33

In the course of time, as the ice melts away below the water, the berg turns either to one side or the other and the constant washing of the water through these apertures increases the size and smooths the rugged inequalities of the surface; and before the berg finally dissolves or becomes dismembered the tunnel may have occupied numberless positions, sometimes below, sometimes above the water, or at its edge.

This simple explanation accounts for some of the physical phenomena which have caused astonishment to spectators who never had an opportunity of tracing the floating iceberg to its source, where to the casual observer it seems to be as firmly fixed as the mountains themselves.

Thursday, July 22nd. This day was devoted exclusively to sketching, surveying, and photographing, so far as our persistent attendants, the flies and mosquitoes, would permit. We had thought them excessively annoying at Krakortok, but they were moderate in their attentions at that place, compared with their spiteful attacks on us here.

Early in the morning Dr. Hayes, with a surveying party, went ashore, and ran a base-line one mile in length right up to the point of intersection between the land, glacier, and water, expecting to return after breakfast and complete his labours; but all efforts to do so were rendered futile. It was impossible to keep one's face uncovered long enough to measure an angle, nor was it possible, by any arrangement of mosquito nettings, to protect the body.

The only place of refuge was immediately under the shadow of the glacier, and it was amusing to see the party abandon instruments and rush for the ice-caves where they could sit or stand in a cool atmosphere, looking out upon their foes, who seldom approached nearer than fifteen or twenty feet. After a brief respite they would strike again for the un-

and mosquitoes swarmed so densely, that one of the party, stationed a short distance from the camera, having a small picture of himself taken, it was actually rendered somewhat obscure by the cloud of insects around it.

Both parties were finally compelled to come aboard for protection, but at low water the photographers found some dry rocks from which excellent views were obtained of the fiord, glacier, vessel, and groups of natives in their oomiaks and kayaks.

It was a mystery to us all how our native allies could bear so complacently the torments which drove us to seek for shelter. They had pitched their summer tents in shore immediately abreast of us, and there they would sit or lie upon the rocks, contentedly gorging themselves with the raw salt pork and hard tack with which we had plentifully supplied them, paying no more attention to the annoyances around them than if they did not exist.

It was also singular to notice the perfect peace and quietude of both fiord and glacier. It would seem as if the heavy convulsion of the day previous had shaken off all those portions that held their position by a doubtful tenure, as there was no discharge worth mentioning; while the fiord which at the same time had been so densely packed that our steamer could scarcely have worked her way through, was now entirely free from ice, the current having swept it all away.

Our "Botanist," if we may apply that term to one who merely culls and arranges, without attempting to classify, reports having found twenty-eight different varieties of plants and flowers in this vicinity, some of them different from those procured at Krakortok and Julianeshaab. In one place he stood with one hand resting on the glacier and plucked five different flowers growing in its shade.



NO. 39. ICEBERG WITH AN ARCH IN IT, WHICH, WHEN CONNECTED WITH THE GLACIER, WILL GIVE THE READER TO UNDERSTAND HOW THE WATER FLOWS FROM THE GLACIER THROUGH THESE ARCHES, CAUSING THE RAPID CURRENT.

completed work, like a forlorn hope waiting for a chance to recover a lost battery.

The photographers, Messrs. Dunmore and Critcherson, also met with a similar experience; and not having the friendly shelter of the glacier, fared worse than the surveyors. They were working on the borders of the marshy land before referred to, where the flies









NO. 42. ON THE GLACIER, LOOKING INLAND TOWARDS THE GREAT
MER DE GLACE.

CHAPTER VI.

VISIT THE SUMMIT OF THE GLACIER—A DAY'S JOURNEY INLAND ON THE TOP OF THE GLACIER—THE BIRTH OF AN ICEBERG—AT WORK SKETCHING
AND PHOTOGRAPHING—RIVER UNDER THE GLACIER—LEAVE THE GLACIER—MOTZFELDT ENTERTAINS THE PARTY—A GRAND DANCE AT
HIS HOUSE.



FRIDAY, *July 23*. At 10 a.m. we left the vessel and landed at a convenient spot, bound for the summit of the glacier, forming altogether a decidedly promiscuous assemblage, some forty persons, all told. Whites and Esquimaux, each one carrying something, either of provisions, camp-equipment, photographic or surveying instruments.

Ascending the hill, we struck into the gorge between the glacier and the land, as that was the easiest line of travel, and continued on that route about two miles before attempting to climb upon the ice; and while the reader may suppose us toiling along this weary road I will describe the action and appearance of the glacier in its onward course.

That glaciers move is a well-established fact, and the cause is very simple and obvious. Forming as they do above the ordinary line of freezing from the accumulated fall of rain and snow, the lateral pressure must find an outlet, and wherever there is a depression in or between the hills, they move along slowly but steadily, their progress being in proportion to the angle of the declivity over which they glide. The composition of berg or glacier ice is more porous than that which accumulates from ordinary freezing in still water, and some scientists maintain that the onward motion of the mass is caused by water filling these pores or vesicles, and thus distending them and forcing the ice ahead wherever there is an outlet or depression in the land on which it rests. This theory would answer very well were it not for the simple fact that the glacial flow is not restricted to the summer months. It has been proved by actual experiments in North Greenland that the glacier flows at about the same rate in mid winter, when no thawing can possibly take place, as it does in summer time, when the whole surface of the glacier is sometimes almost liquefied.

My own opinion is that this motion is caused by what we may call surface or accumulated pressure. As the great body increases at the summit it must find an outlet, and hence the flow. The ice moves onward, accommodating itself to the surface of the earth, overcoming all obstacles in its progress, and gliding along with an irresistible impetus until the water is reached. Then it keeps on, projecting out into the sea, being opposed by nothing but the water which buoys it up and prevents the "overhang" from breaking off; but after a time the upward pressure of the water overcomes the resisting power of the ice, and the latter breaks off, floating away in the form of a berg, and carrying whatever of detritus it may have accumulated in its progress.

Away then floats the ice-island, containing perhaps a dozen different varieties of soil or rock, and as the currents bear it to a warmer clime where disintegration finally takes place, rock, sand, and soil are deposited at the bottom of the sea in different places, thus sometimes causing wonderment to the sailor whose plummet brings up substances foreign to their immediate surroundings. It is not impossible that the "Grand Banks of Newfoundland" have been mainly formed by such deposits during the past centuries; as it is certain that they are being added to by the accumulations from similar sources at the present day.

This is no place, however, for a scientific disquisition, even if I felt myself competent to the task, and we will remain satisfied with the simple fact that the glacier moves. Motzfeldt showed me a place nearly two miles back from the present face of the glacier, where forty years ago he walked across the fiord between it and the water.

The line along which we were travelling requires some explanation, and this brings me back again to glacial progress. I can compare it to nothing but a huge plough. In its course down the valley everything is absorbed which is not pushed aside; and here were huge rocks, many tons in weight, thrown off like pebbles. Again, an arm of the glacier had wound around an angle in the rocks, picked up an immense detached boulder and carried it away, and everywhere the opposing surface was thrust back; sometimes forming a "moraine" thirty feet, and frequently more than that in height. But to our expedition.

Through a gully, with land on one side and ice on the other, we travelled, glad enough to be freed from the mosquitoes that swarmed upon our left. At length a favourable opening appeared, and we commenced climbing the glacier. The way was rugged and difficult at first, but after gaining an altitude of four or five hundred feet the walking became more easy, and we kept on along the crests of ridges for two miles or more, with deep crevasses yawning on either side, until an elevation of about two thousand feet



NO. 44. THE PARTY IN CAMP ON THE TOP OF THE GLACIER AFTER A DAY'S JOURNEY INLAND. DR. HAYES MAY BE SEEN AT THE RIGHT-HAND SIDE OF THE TENT.

to connect with the previous observations taken upon either side of the fiord, being aided in this by two prominent hills, some miles away, which had been used before as objective points.

Others of the party amused themselves by discovering crevasses, and attempting to fathom their depths. This was difficult work, not in finding the crevasses, but in *sounding* them; for the ragged sides precluded the possibility of sending a weight to their bottom. Some of them were only two or three feet wide at the surface, and from fifty to one hundred feet of sheer descent; then an intervening shelf would branch out, but the unmistakable murmuring from below, indicated still unfathomed depths.

The cooks built a rousing fire on the ice with materials brought from the vessel, and improvising a kitchen with the aid of boat-hooks, soon had dinner in course of preparation, and from the crowd assembled, especially of Esquimaux, this would seem to have been the most important operation in progress.

Leaving the others to their various pursuits, I wandered, sketch-book in hand, on my particular mission. But there were so many elements of novelty around me to attract or distract the attention, it was difficult to do more than sketch some outlines, which possibly may be reproduced at some future day. At length, I became so fascinated by the scene that I actually threw myself upon the ice, the more absolutely to enjoy it.

But I was not to enjoy unalloyed repose. Whichever way I directed my attention, the sound as of flowing or falling waters filled my ears. What could it be? The solid ground could not be less than a thousand feet below me, the air was pure and calm, there was nothing to excite an erratic fantasy, but while lying thus upon the ice it was impossible to divest myself of the idea that I was gliding along upon the bosom of a placid stream, which was bearing me imperceptibly onward to an overwhelming cataract.

above tide water was reached. Here the tents were pitched, and all were soon variously employed. The photographers with commendable perseverance took views in all directions, not forgetting various groups of the company.

The surveying party ran a base-line thirteen hundred feet, say one quarter of a mile, in length, and from each extremity measured angles



I could not endure the illusion. I rose to my feet, but the noise as of water still continued. In fact this was the only sound that could be heard, for I was far away from my companions, with nothing to connect me with any living thing. Never before could I imagine or be impressed with such a perfect feeling of solitude.

At length, approaching the edge of a narrow crevasse, the bottom of which was hidden from view by the winding sinuosities of its sides, I understood the reality. Around me were pools of water, working out wherever there was a "downlet" through the ice, and adding their quota to the mighty river which seemed to be and probably was undermining the whole fabric upon which I stood; being fed in this way by surface meltings, and also from the numberless streams which came pouring down upon it from either side, thus increasing its force and volume until it finally resulted in the powerful current which we had experienced sweeping down the fiord.

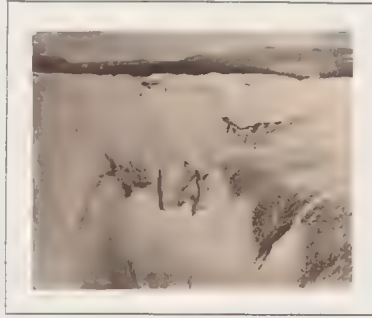
From this position, which overlooked the highest land in the vicinity, though even ground, possibly islands or submerged rocks over which it has forced its way. Probably the latter, for Motzfeldt does not remember any very great inequalities in the surface over which he wandered so many years ago.

At 2 p. m. all the scientific and other labours were completed, and after doing justice to the dinner, which was excellent and sufficient for the whole party, though our Esquimaux assistants did not leave it until the last bone was picked, we retraced our steps to the shore, gained the vessel, and started again for Kraksimiut, arriving there in time to attend a grand *soirée* at Motzfeldt's Government House.

This was a grandiose affair, and our young gentlemen having overcome their repugnance to dancing with partners who might possibly turn out to be of their own sex, or else attracted by the Governor's comparatively pretty girls, entered into the spirit of it and enjoyed themselves accordingly.

graves can be dug, and where the tomb is simply a rude arch of stones erected over the dead body, it would seem to be a very easy task to satisfy them; and so it would had they been left alone for a few minutes, but that was impossible. If one of our number started quietly out by himself, he was sure to be followed by a crowd of natives whose curiosity overcame their politeness, and their attentions were so marked that nothing really could be done surreptitiously, so that, to the best of my knowledge, none of the defunct Esquimaux in the cemetery lost their heads.

Although we could have spent many more pleasant days at this place with the single-hearted and hospitable



No. 45. VIEW ON THE TOP OF THE GLACIER, SHOWING THE CREVASSES, WITH THE PARTY IN THE DISTANCE.



No. 46. MOTZFELDT'S HOUSE, IN WHICH THE BALL WAS GIVEN, WITH A GROUP OF ESQUIMAUX IN FRONT OF IT. THE HOUSE IN THE FOREGROUND IS HIS PRIVATE RESIDENCE.

some of the hills further inland rose still higher, the glacier sloped away about two miles as if it had passed over a ridge in its onward course, and then commenced rising gradually again, without any of the sharp peaks or deep crevasses that prevailed near us, and stretching away thence to the great *Mer de Glace*.

We suppose that its disrupted surface between this spot and the water is caused by broken and un-

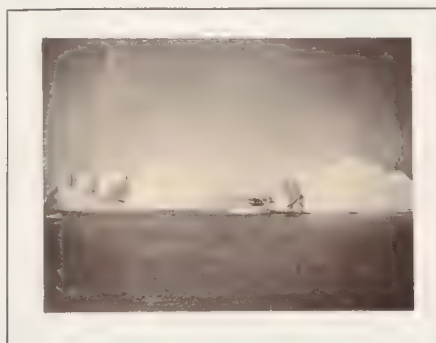
Saturday, July 24.

We remained at Kraksimiut, enjoying the hospitalities of old Peter, who seemed loth to part with us. During the day we amused or interested ourselves in the usual manner, and everybody, I believe, was fully satisfied, excepting some who were ethnologically inclined.

They were in the pursuit of skulls; and, in a country where no

Peter, time would not permit, as we were anxious to make our most Northern latitude as near midsummer as possible; so this Saturday evening, after an interchange of presents by which I think we were the gainers, and with many a hearty *skald*, or good health, from our honest old host, we bade farewell to Kraksimiut, and sailed for Iviktut, in Lat. $61^{\circ} 12'$ N. Lon. $48^{\circ} 05'$ W.

Passing the now familiar place where we had remained wind-bound, and rounding Cape Desolation, the steamer's head was pointed to the Northward, and after a pleasant run, we made our port early in the morning of Monday.



NO. 47. THE STEAMER AMONG THE ICEBERGS HEADING TO THE NORTHWARD.



NO. 47*. SIDE VIEW OF THE GLACIER, WHERE THE MIDDLE IS FORCED OUT MORE RAPIDLY THAN THE SIDES.



some of those engaged in the business only attempt to make one, on account of the danger from pack ice off shore, although it pays well. The rate of freight to Philadelphia is nine dollars in gold, per ton.

It is singular that this valuable mineral should not have been found in any other part of the world; its discovery was, I may say, the result of accident, in the following manner:—

Among other civilized manners and customs acquired by the Esquimaux from their intercourse with Europeans, is an immoderate fondness for tobacco in all its various forms, the gentler sex having a special liking for snuff; but, owing to high prices, or a scarcity of this commodity, they were accustomed to mix it with a white powder, procured by pulverizing a species of surface rock, the locality of which was known only to themselves.

This at length attracted the notice of the Danes, partly on account of the mineral traces appearing in it, and samples were sent to Copenhagen for analysis. Its true nature and value having thus been discovered, a company was formed to open the mine, and operations commenced; principal attention being given at first to breaking up the cryolite and selecting from it the more valuable ores, especially the lead and silver. Two vessels were finally loaded exclusively with these ores and started for Denmark, but neither of them was ever heard of after sailing from Iviktut.

This misfortune, combined with other untoward events, led the lessees of the mine to abandon their charter. Subsequently the present company was formed, being guaranteed for twenty-five years the privilege of working all mines of any description that might be discovered in Greenland, the Danish Government reserving to itself a royalty of twenty-five per cent. They have now been operating here successfully for the last five years, and the supply is only limited by the want of transportation.

We were shown every attention and kindness by Messrs. Saxtorf and Fritz, who represent the Danish company, and also by Captain Reynolds, agent of the American company, who stays here during the summer months to superintend the loading and dispatching of vessels; he having three on hand now, one of



NO. 50. IVIKTUT, WITH KUNAK MOUNTAIN IN THE DISTANCE.

to go home every fall, when the last vessel for Denmark takes its departure; the balance working through the winter in order to have cargoes in readiness for the first vessels of the Spring fleets.

The development of mineral wealth is but just commencing in Greenland, which, away from the settlements scattered along the sea-board, is very imperfectly known, though it offers a rare field for the researches of naturalists and geologists. I was shown some fine specimens of lead ore that were picked up on an island near by, and it is said that a vessel might be loaded by merely picking up the surface pieces that are lying around loose among the rocks, without the preliminary work of blasting. At present however sole attention is given to the production of cryolite, which is easily mined, and is more marketable than any of the other ores.

At this place we were not treated to the usual ball and reception, for the very good reason that women are a forbidden article at Iviktut, excepting the wives of the officials and their immediate servants. The native settlement is on the opposite side of the fiord, near its entrance, some fifteen miles away from here, and almost under the shadow of Kunak Mountain. Here they follow their own avocations, holding no intercourse with the miners excepting on matters of business.

This fiord, like that of Sermitsialik is terminated by a glacier, but as our curiosity had been fully gratified at the latter place, and time was pressing, we did not visit it. During our stay a small steamer bearing the Danish company's flag came into port, and upon visiting her I was much surprised to find that she had been formerly the "Fox," rendered famous by Sir Leopold McClintock's voyage in her when searching for Sir John Franklin. She

which was nearly ready for sea.

Through the courtesy of these gentlemen we were enabled to make a thorough inspection of the mine, and obtain full particulars regarding its working. The miners are all Danes, it having been found impossible to utilize the native element. They are engaged for a term of years, but one half of them are allowed

was subsequently purchased by the Danes, and is now used by them as a dispatch boat, her former fittings rendering her peculiarly serviceable for such work in these seas.

July 27. Having accomplished the objects of our visit we bade farewell to this lonely colony, and, in charge of a native pilot, once more put to sea, taking in tow one of the vessels that was homeward bound. Instead of going out through the same passage by which we entered, our pilot took us through a narrow channel between the islands, where in some places an active man could easily have jumped upon the rocks. The water was deep however, and the "Panther" came through all right close by Kunak, thus avoiding half a day's journey outside to reach it.

Here we cast off our tow, and, after taking some excellent views of Kunak and its vicinity, headed to the northward under a full pressure of steam.



NO. 50*. INSTANTANEOUS VIEW OF ICEBERGS ON OUR WAY NORTH.





NO. 53. STEAMING UP THE COAST.

CHAPTER VIII.

TAKE OUR DEPARTURE FROM KUNAK MOUNTAIN—BOUND NORTH FOR THE ARCTIC CIRCLE—WE ENCOUNTER A FOG—FIND OURSELVES SURROUNDED BY ICEBERGS—NARROW ESCAPE FROM RUNNING ON THE ROCKS—ARRIVE OFF OOMINAKS FIORD—REMARKABLE BEAUTY OF SOME OF THE BERGS—PROPORTION OF ICEBERGS ABOVE AND UNDER THE WATER.



AFTER taking our final departure from Kunak Mountain and its surroundings, we struck boldly out to the northward, bound for an invisible though palpable line called the Arctic Circle, and beyond that again, the "Midnight Sun," an object of wonderful and strange significance. The sun shining all day long, moving around in a circle just above the hill-tops, bearing due north at midnight, east at 6 a.m., south at noon, and due west at 6 o'clock in the evening, thence going on to finish its daily course, never setting for weeks, and making the day continual.

It will be noticed from the above statement that the sun, describing a great circle in twenty-four hours, covers at the same time all the points of the compass; that is, thirty-two points; making eight points of the compass in six hours of actual time, and one point of the compass in forty-five minutes. By due consideration of this fact, the Arctic navigator can shape his course by the sun when that luminary is not obscured by fogs or clouds.

I may say in this connection, that in these northern regions, so near the western magnetic pole, the compass is practically valueless; the variation being so great—more than the quadrant of a circle—and the dip of the needle more than eighty degrees, its motion is so sluggish that it cannot be depended upon for nautical purposes. Instead of pointing north, the needle will sometimes indicate west, and even, at times, south of that point. But by using the chronometer, or any other exact time-keeper, the ship's course may be shaped in the following manner. We know, for instance, that the sun bears south-east at nine o'clock in the morning; then, if we wish to steer due north, the sun at that time should be on our starboard quarter, half-way between the beam and stern. Watching the sun, and noting its hourly variation carefully, the ship can be kept straight upon her course without any reference to the compass, which, as I have said, is perfectly useless here as a guide to the navigator.

Scarcely had we started out into the open water, when a dense fog set in, and it was necessary to depend more upon our judgment than nautical skill. The fog was low-lying; very dense at the water-line, so that it was impossible to see the fore-castle from the quarter-deck, while at the same time the mast-heads were in bright sunlight. It created a remarkable sensation to climb the rigging, and with the deck invisible, look out upon a sea of fog, with here and there the towering form of an iceberg looming through the mist, its summit glowing in the sunlight while the base was entirely hidden from view.

It was by means of the look-out from aloft that the "Panther" was kept on her course, avoiding dangers



which could not be seen from below. Sometimes, however, the fog closed in from above as well as on every side, and then going at a moderate rate of speed we had to listen for the sound of rippling waters, which indicated where their surface was disturbed by some foreign substance.

While steaming along in this way we were startled by one of the look-outs forward, a green hand, by the way, in Arctic navigation, shouting:—"Land on the starboard bow, close aboard!" The engines were immediately reversed, and our course altered.

Looking in the direction indicated, my eyes were attracted by the gleaming of a pale, silvery spire, which appeared to push itself upwards and outwards through the vapours that surrounded it. Then we knew that ice instead of land was the cause of our alarm, and all hands were immediately on deck to look at it.

Regardless of what others thought or said, the scene possessed such rare interest and charm for me that I desired to enjoy it alone. While gazing at its peak, and anxiously wishing for a more perfect view, the sun shone out clearly, dispelling the fog-wreaths which hung around the berg, and investing the whole mass with a grandeur and beauty that filled my mind with impressions not soon to be dispelled.

Around its base the waves beat continually, moving at first with solemn regularity, and appearing of an almost inky blackness when contrasted with the towering mass above; then as they approached their goal, they assumed a dark green hue, which again quickly shifted, varying to every intervening shade between that and the palest blue, until driving higher up the iceberg's side, their shattered crests would gem the air with diamond drops, and then disappear, to be succeeded by a similar display; all beautifully relieved against the snow-white wall; which, with its manifold creases and crevices, shone with the peculiar glistening lustre of white satin, and with a beauty cold, calm, and remorseless as fate.



NO. 54. INSTANTANEOUS VIEW OF ICEBERGS PASSED OFF THE COAST.

The summit, too, with its airy and fantastic outlines, was not without its glories, which, if possible, were still more enchanting.

The lofty peak which we had first seen, towered in the air, like an old cathedral spire, to more than double the height of the main body, the top of which was diversified with a thousand points and pinnacles, catching and reflecting back the sunlight until the whole upper surface seemed tinged with faint, flickering tongues of flame. Here and there slender spires rose twenty or thirty feet, so thin and transparent of hue, that it was sometimes difficult to determine the exact dividing line between them and the sky beyond, with which they appeared to blend.

It was a rare scene of ever-changing beauty, assuming new shapes as we glided slowly by, and one long to be remembered. But its glories soon faded from our sight, for dark fog-banks were gathering astern.

Slowly they rolled around the iceberg's base, then gradually rising they enveloped the crest, reminding me of the Laocoon in the serpent's coil. Finally the main body disappeared, leaving no token of its former presence except a dark shadow in the fog, but the lofty pinnacle of the tower still remained reflecting the sunlight from its uneven angles.

The fog-wreaths rose higher and higher, until nothing was left in view but one single gleam of light, which flashed out for a moment, then vanished, leaving us to pursue our uncertain track through the gathering gloom.

So brief and bright had been the vision, and so rapidly did it pass away, that I felt like questioning whether or not it had actually taken place, for it was as if we had touched upon the border of fairy land filled with enchanted castles. My wandering thoughts were recalled by the look-out-man on the fore-castle giving the warning cry, which was to be familiar to us for several days, "Ice ahead, close aboard!" A few minutes of prompt action on the part of our captain was necessary to keep us from running head on to a *small* piece three or four times larger than our vessel. As we literally shaved by it I became fully satisfied that we had been gazing on

towards Cape York, and it was just as well, perhaps, that we had this premonitory warning to keep off shore.

After getting a sufficient offing the course was altered, and we steamed north again. When morning broke, or about the time that morning would break in temperate regions, we found the sky clear, the fog dissipated, and the sea open, excepting the countless icebergs that were on every side.

We were off Oomeniak Fiord, which has been called the mother or nursery of icebergs; for here are two great glaciers which annually discharge their surplus accretions, giving their quota to the icy masses that swarm through the waters of Baffin's Bay and Davis' Straits.

The scene that presented itself was one that none except those whose pursuits call them to the Arctic Seas detached fragments to towering masses, hundreds of thousands of tons in weight. With a little aid of the imagination almost any ideal form could be realized.

Far to the westward rose a gentle slope seemingly covered with cottages, and the illusion was so complete that it could scarcely be detected with the aid of a spyglass. It was a winter scene, white, stern, and cold. To the right of this towered a higher and more precipitous mound, surmounted by a wall with watch-towers at short intervals, which would pass for a representation of some old feudal keep, or a castle on the Rhine. Another, standing alone, rose above all the rest, forming nearly a perfect model of the Coliseum at Rome.

Others appeared like ruined castles, one in particular having a low wall in front which might have enclosed a court-yard. On this wall were four pagoda-shaped towers, between two of which a breach had been made by the waters, and through it the waves were dashing into a circular basin parlour for a sociable party of bears. A singular feature in many of the bergs seen this day were streaks a few inches in width, the colour of Prussian blue, which appeared to extend clear through the mass, presenting an agreeable relief to the otherwise dazzling whiteness. These streaks were formed in the glacier, most probably by the surface meltings running into and filling up narrow cracks, which, subsequently freezing, retain a different colour from the surrounding portions. The variety of the icy shapes was endless, I could dilate upon them till I filled a volume, but will only describe one more, which, though small, was one of the most remarkable seen.

The main body of this berg was a nearly perfect pyramid about one hundred and fifty feet high; from one side of this a tongue projected ninety or a hundred feet, entirely submerged excepting at its outer extremity, which rose from the water in the exact form of a human neck and shoulders, with about twenty feet of the chest exposed,

have the privilege of witnessing, and one that neither pen nor pencil can delineate. The play of light and shade was wonderful. I was enabled to procure some of the finest studies of colour I ever saw.

It was after eleven o'clock p.m., the sun was nearly ahead of us, low down in the northern horizon, all around were icebergs, multiform in shape, and of every size, from small

resembling the crater of a volcano, sufficiently large to contain three or four ships abreast.

Some of the bergs had arched caves running through at the water's edge, and others deep holes, sometimes more than a hundred feet up, extending in to an unknown depth, were large enough to admit the hull of our steamer without her masts, while others would only make a snug



NO. 56. INSTANTANEOUS VIEW OF AN ICEBERG.



NO. 57. AN ICEBERG ABOUT 100 FEET HIGH.

realities, which, whether enveloped in fog or bathed in sunlight, were emphatically stern ones, and not to be trifled with.

The fog continued, and we kept on our way, passing, perhaps, dangers which, had they been visible, would have daunted the bravest. It was next to impossible for the most experienced navigator to determine our exact position, for no observations had been taken for four days, and where the currents were uncertain, and consequently unknown, dead reckoning—rightly named—could not be depended on.

Captain Bartlett, Dr. Hayes, and myself were in the room which I had fitted up on the forward deck for my studio, examining charts, and trying to find out where the vessel ought to be, but our endeavours were fruitless. At last the captain, dashing his hand on the table, said, "I would give anything to know where we are!" The window of our room was open, and Dr. Hayes made quick response, "I don't know exactly where we are, but I can assure you, that unless our course is altered we shall be on the rocks in less than five minutes."



NO. 55. THIS VIEW SHOWS THE BEAUTIFUL FORMS IN VARIED SHAPES WHICH THE BERG ASSUMED. ON THIS BERG WE FOUND A LAKE OF FRESH WATER, COVERING AN ACRE IN EXTENT.

His quick ear had caught the sound of breakers which have a different intonation from the roaring of the waves against an iceberg in the open sea. It was the unmistakable noise of the waters dashing on the rocks. The sounds are widely different, and to the practised arctic navigator easily distinguished. Captain Bartlett was not slow to accept the premonition, and gave the order, "Hard a starboard!" which turned the "Panther's" head off shore.

And not a moment too soon, for a dark cloud loomed through the fog, and along its base we could distinguish a line of breakers. A cast of the lead showed that we had twenty-five fathoms of water, which soon deepened to one hundred and fifty fathoms, and we were safe again. Our glimpse of the land had been so brief that it was difficult to determine where we were, but Dr. Hayes thought that it was the south-western point of Disco Island, and our subsequent experience showed that his judgment was correct.

It had not been our intention to stop at Disco, on going to the northward, because it would absorb time which we wished to use in Melville Bay, if the season should be open enough for us to drive in and work through

It was a sight, however, which soon lost its novelty. As first impressions are most lasting, our thoughts will always revert with most pleasure to the events of this night. It was difficult to make ourselves familiar with the complete reversal of the whole order of nature. No one seemed to be conscious of bed-time, and there was but little sleeping by any of our company. In fact, slumber was the exception instead of the rule. The ship's bell struck the hour as usual, meals were eaten, the daily routine of duty or amusement went on with accustomed regularity, but the day had no end, and nearly all were unable to reconcile themselves to the idea of retiring, with sunlight staring them in the face.



No. 59. THE "PANTHER" PASSING UP THE COAST UNDER THE MIDNIGHT SUN.



No. 59*. INSTANTANEOUS VIEW OF ICEBERGS OFF THE COAST, AT MID-DAY.

perfectly smooth, and white as the purest marble, well-proportioned and as finely rounded by the action of the water as if fashioned by the chisel of a sculptor. The neck terminated in a circular knob, which, although not large enough for the head of such a figure, was easily and gracefully balanced, the arm pointing to the heavens resembling a Titan rising from the sea, or a half-buried Sphinx before a pyramid. The shoulders being about forty feet in width, would, if the figure were completed, belong to a statue at least two hundred feet high.

While admiring this, we heard astern a noise resembling the long roll of distant thunder, or, rather, the reverberations caused by an earthquake, and upon looking around, saw a lofty peaked berg over two hundred feet in height, which seemed to be changing into a fountain. From some unknown cause it was crumbling to pieces, and as the countless fragments came tumbling down its ragged sides, the sunlight playing on the shifting masses gave them the appearance of falling water, an illusion which was aided by the foam and spray. When about half of the berg had disappeared in this manner, it commenced rolling slowly from side to side, its vibrations increasing in velocity until at last it turned completely over with a long-continued and almost deafening roar, with which was blended the noise of falling waters, as the miniature cataracts came rushing down in a thousand streams. When the berg finally settled into quietness, it had an entirely different form, showing a round, smooth surface not unlike the back of a turtle. It was about three hundred feet in length and fully one hundred feet high.



NO. 58. IN THIS VIEW IT REQUIRES BUT LITTLE IMAGINATION TO SEE THE FIGURE OF A MAN CLINGING TO THE TOP OF THE BERG WITH ARM AND HAND UPLIFTED, WARNING US NOT TO APPROACH TOO NEAR.

Here let me correct a popular error regarding the bulk of icebergs. From the well-known fact that ice floating in salt water presents about one-seventh of its actual weight above the line of flotation, the impression has become general that a berg whose summit is two hundred feet high must necessarily be twelve hundred in depth below. This is arguing on the presumption that the berg is of the same form throughout, which is probably never the case, and it is possible for the submerged portion to be less in depth than the visible part, although its proportions in weight will actually be in the ratio of six or seven to one.

As the first watch, from 8 p. m. to 12, approached its termination, all hands were collected on deck to view—"The Midnight Sun!"

There was not a breath of wind; the sea was perfectly smooth, nor were any clouds in sight. Midnight—yet not a star in the sky! everything wore an unreal aspect. It seemed the work of enchantment. At a quarter to twelve the sun's lower limb touched the horizon and rolled along its verge like a ball of fire. By midnight, less than one third of his disc being below the horizon, he commenced rising again, rolling slowly along to the eastward, literally beginning his daily course at the beginning of the day.

Once, a large iceberg intervening between us and the sun, completely distorted his natural shape, while the icy towers, peaks, and pinnacles were bathed in sheets of blood-red flame, the main body of the berg appearing jet black by the contrast. I cannot imagine any more magnificent or beautiful sight than this huge irregular mass of ice, apparently pouring out fire and flame, yet without smoke or vapour.

This, to most of us, was the first time the sun had ever been visible for twenty-four successive hours.

It rises to an elevation of more than four thousand feet, and serves as a guide for vessels bound to Upernavik, the capital of the northern inspectorate; the harbour lies immediately north of it, while Karsut fiord opens in to the southward.

Although more than fifty miles distant, its rugged sides were plainly visible, seemingly not twenty miles off, affording us another instance of the difficulty in determining distances through the clear, transparent atmosphere of the Arctic regions. Where there is neither dust nor smoke nor other impurities to obstruct the air, everything comes out with a peculiar sharpness, like the pyramids, which stand so clearly in relief that they do not appear half the distance off they really are. Indeed there is a marked similarity between the atmospheric phenomena of the desert and of the Polar seas, especially with regard to the mirage and to apparent distances. It is no uncommon occurrence for icebergs to be visible in the air when they are actually below the horizon, and they will sometimes present mutations of form that are extremely puzzling to the inexperienced navigator. All Arctic



NO. 61. SANDHORN ROCK AT THE ENTRANCE OF KARSUT FIOKD, RISING OUT OF THE MIDDLE, AND OVER 2,000 FEET HIGH. THE STEAMER ON THE LEFT MADE LAST YEAR AN ICEBERG, ON THE TOP OF WHICH WAS A LAKE OF WATER, FROM WHICH WE FILLED OUR TANKS. THIS IS OVER A MILE AND A HALF FROM THE BASE OF THE ROCK, AND SHOWS ITS HEIGHT BY COMPARISON WITH THE SHIP.

explorers have noted and commented upon this fact, recording occasional instances where they have travelled long distances before reaching bergs or islands which did not seem to be more than a mile away.

Steering straight in shore we appeared at first to be driving directly on a rock-bound coast, without the least possibility of finding a harbour, but there soon opened the entrance of a narrow fiord which wound backwards between lofty hills, presenting a variety of magnificent scenery which I do not think could be surpassed, or scarcely equalled by any landscape in the world, not excepting the far-famed Yo-Semite valley itself. These cliffs were devoid of any vegetation but lack of it gave to this fiord a peculiar majesty and grandeur.

The cliffs upon our right were estimated by Dr. Hayes to be not less than three thousand five hundred feet in height, and in some places so nearly perpendicular that a stone thrown from an elevation of more than two thousand feet would fall into the water at their base.

On the opposite side, Kresarsoak raised its head above the clouds, presenting a general similarity of appearance to the cliffs just described; being equally precipitous for an altitude of about three thousand feet, then sloping backwards and upwards to the summit of the peak. Steaming slowly along through this natural gateway, the



No. 60. SVARTEHUK, OR BLACK HEAD.

CHAPTER IX.

ARRIVE OFF SVARTEHUK HEADLAND AND GO ASHORE—COME IN SIGHT OF KRESARSOAK MOUNTAIN—VISIT KARSUT FIORD—VISIT ESAAC,—THE GOVERNOR OF THE SETTLEMENT HERE—MAKE FAST TO AN ICEBERG—THE GUNNERS HAVE A FINE DAY'S SPORT—LEAVE FOR UPERNAVIK.



HAVING now fine weather, and smooth water, the "Panther" was given a full head of steam, and we drove along with the ice-crested hills of Greenland in plain sight on our starboard, until we made the lofty headland of Svartchuk, or the Black Head. This cape receives its name from the dark complexion of the rocks which compose it, and the designation is certainly appropriate. Standing out so boldly, with lower land of a different formation, the whalers find it a valuable landmark before proceeding to the north water and middle ice of Melville Bay.

Running close in shore, we landed a party for the purpose of taking views, and also to give our sportsmen a chance for exercising their skill, as there was a deficiency of fresh provisions. Some fine photographs were obtained of the scenery, which was wild and barren to a degree scarcely imaginable. I was also enabled to increase the treasures of my portfolio with a number of excellent studies in oil.

The hunters found full scope for their energies in duck-shooting, and a few lumme were also secured. These latter belong to the family of "divers," and are more palatable than the eider-duck, on account of being less fishy in their flavour. We expected to find some reindeer, but were disappointed. This had a bad effect upon the more enthusiastic, who had been looking out anxiously ever since our arrival upon the coast, for game that would give them more exciting sport than bird-shooting and an occasional stray shot at a seal. Arctic bears and reindeer are not so plentiful as they were in former years, and as they still are supposed to be; our sportsmen, however, hoped for better things in Melville Bay.

Upon returning aboard we found that the "Panther" had narrowly escaped running upon one of the many sunken rocks which abound along the coast. Fortunately the shoal-water was discovered in time to make necessary alterations in the course, and we were free to keep on again with fine weather and pleasant surroundings, bound next into Karsut fiord, the locality of which was already indicated by the lofty mountain of Kresarsoak, the name given to it by the natives on account of its great size and lofty peak, towering far above the clouds.

This is, I believe, the loftiest point of land upon the coast excepting Kunat mountain near Ivigtut, already described. It is better known upon our charts as Sanderson's Hope, having been so called by the same stout-hearted old John Davis, in 1585, who pushed to the northward after narrowly escaping shipwreck at Cape Desolation.



fiord widened a little and changed somewhat in its character, particularly on the left or northern shore, where a bay extended back to the base of the mountain, which is here less steep; the rocks having broken and crumbled away until their *debris* formed a slope of about forty degrees for five or six hundred feet.

The lower part of this slope was partially covered with a stunted vegetation that presented a cheerful contrast to the general barrenness above and around it. There were also some inequalities in the surface which gradually took the form of huts, and the hunting station of Karsut was before us. Soon a fleet of kayaks assembled around us, their occupants making the air hideous with their noisy ejaculations, intended doubt-



NO. 62. LOOKING DOWN KARSUT FIOKD—THE CLIFFS ON THE LEFT WERE CALCULATED BY DR. HAYES AT ABOUT 4,000 FEET IN HEIGHT.

less as a welcome, for they paddled along in company, performing their usual dexterous feats with harpoon and lance.

As we came abreast of the settlement, an old-fashioned ship's boat put off, pulled by four natives, and steered by a white man, who, upon coming alongside, announced in very broken English that he was "Governor Esac." I said that he was white, but that is a misnomer. He might have been so once, but from long intercourse with the Esquimaux he had become one with them, and carried a load of dirt on and under his skin clothing that would not have done discredit to a native.

Still, being an official, he was invited on board, and entertained in a becoming manner, necessary attention being given to creature comforts, so that when, leaving us after an interchange of courtesies, he was a much more cheerful looking "Governor" than the one who had presented himself half an hour before. Promising to return his call before our departure, we kept further up the fiord to inspect a solitary rock that rose to an altitude of nearly two thousand five hundred feet immediately before us.

And here again were we deceived by the peculiar state of the atmosphere. The water was so still that the reflected shadows of the cliffs could scarcely be distinguished from their originals, making all our surroundings

appear unnaturally lofty as they were relieved against the sky, and giving the impression that we were directly under the shadow, though really some distance away.

Determined not to encounter any unnecessary risks, Captain Bartlett, supposing that we were within half-a-mile of the rock, ran alongside of a large iceberg, and moored the "Panther" head and stern, while a party of us should go in the boat for a preliminary survey. To our surprise, the rock appeared to recede as we pulled towards it, and it was not until after more than twenty minutes hard rowing that our boat was really in its shadow; and such a shadow! It caused me to feel a sort of terror, lest the huge mass should topple over and crush us in its fall. Despite any exercise of reason which told me that such an event was improbable, I experienced a feeling of relief as we pulled farther away to take our measurements. We found its height to be nearly two thousand five hundred feet, and the sides everywhere inaccessible, being so nearly perpendicular that they actually seemed to project over our heads.

Far up, there were ledges and recesses which swarmed with countless numbers of birds, principally of the lumme species; the rocks being completely covered with them, while the air was filled with their clamour. This is one of their great resorts for breeding; sitting in rows upon the ledges they appeared like files of soldiers. They sit on a single egg, which stands on end, row above row, presenting an aspect of solemn gravity amusing to witness. The discharge of a gun, disturbing the lonely fiord with its echoes, sent these birds flying in clouds,



NO. 64. ESAC'S HOUSE ON IGLOR AT THE RIGHT.

which almost darkened the air, while the noise from the fluttering of their wings and their shrill scream was deafening. The alarm to the birds was so sudden that many of them brushed their eggs away, numbers of which came tumbling down upon the water, like a shower of large-sized hail-stones.

The main body of the flock took the water some distance off, and after the splashing caused by their descent had subsided, other boats from the steamer joined us, and a regular slaughter commenced. The work was too murderous for my taste. I left the sportsmen to enjoy themselves, and went with the photographers to further enrich our collections. We obtained several fine views and sketches with which we returned on board, to find the crew busily engaged in filling up our water tanks from one of the numerous pools that were on the level surface of the berg to which we were moored. The hunters soon returned, having laid in a supply of game to last for several days, and we then steamed back to Karsut to call upon Governor Esac. His house was little better than the Esquimaux huts surrounding it, except in furniture. Unlike the other governors' houses that I had seen, this was built after the native fashion, with thick stone walls about six feet high; the roof only was made of rough timbers which had received a thick covering of dirt and sods, so that at a little distance it could hardly be distinguished from a natural mound.

His wife was native born, but from association had become partly civilized, and her surroundings were of a better class than those seen in the huts of the neighbours. She furnished us a cup of excellent coffee, the universal Greenland beverage, and would probably have served up a dish of seal steaks, if we had had either time or inclination to wait for them. The air of the hut, however, was so close, and had such a strong seal flavour emanating from the skin tapestry adorning the walls that we were glad to escape into the open air.



NO. 66. SCENE ON OUR WAY TO UPERNAVIK.

CHAPTER X.

ARRIVE AT UPERNAVIK—DR. HAYES AND MYSELF VERY KINDLY AND HOSPITABLY RECEIVED BY DR. RUDOLPH THE GOVERNOR, AND HIS WIFE—
MRS. RUDOLPH PRESENTS ME WITH A FLOWER—PLEASANT CIRCUMSTANCES CONNECTED WITH IT—LEAVE UPERNAVIK—CALL AT TEN-IC-SUK—
PHOTOGRAPH THE HOUSE NEAREST TO THE NORTH POLE UNDER THE MIDNIGHT SUN—LEAVE TESSIUSUK FOR THE RAFFIN OR
DUCK ISLANDS.



ABOUT three hours of intricate navigation brought us to Upernavik, which, although it is in a much less sheltered position than Karsut, presents a cheerful contrast to it, on account of the evidences of civilization and refinement. We were warmly and hospitably received by Dr. Rudolph, Governor of the Upernavik District, a gentleman well known for his scientific attainments, and for the uniform kindness which he has shown to the various exploring expeditions, always rendering them every assistance in his power, and frequently depriving himself of necessary articles, in order that their wants may be supplied.

In him Dr. Hayes found an old friend, their acquaintance having been first formed during the Kane Expedition of 1853-55, and subsequently continued in 1860 and 1861. We were soon seated at a table in his comfortable house, enjoying genuine Danish hospitality; Mrs. Rudolph presided with an ease and dignity of manner which showed that she was not unaccustomed to the more gentle amenities of life.

One little girl and a boy, the only children with them—the others were in Copenhagen to be educated, gave the house of this happy couple a cheerful and home-like appearance; and were it not for some of the immediate surroundings and the wintry aspect of the country, it would be easy to imagine yourself in a genial clime. Looking out through the half-open casements, winter seemed to be robbed of half its dreariness, for there were flowers, bright, blooming, fragrant flowers, that filled the room with their perfume. This fondness for flowers appears to be prevalent everywhere in Greenland amongst all the Danes who have made homes for themselves, that even the half-breeds show the same taste. We found them in nearly every house where there were any traces of civilization, and it would appear that in this manner these self-banished people strive to keep alive and cherish the memories of their former homes.

One flower which Mrs. Rudolph presented to me as a souvenir had a peculiar interest, and its history is worthy of being told. Some three years previous to the period of our voyage, Julianeshaab was visited by a Quaker missionary, Isaac Sharp, from England, who left flower seeds, from which plants were grown, and,

Egress having been gained through the tunnel, twenty feet long and four feet square, which led out from the doorway, a number of photographs were taken; we then regained the "Panther," being anxious to reach Upernavik harbour about the time of high water. Yet I was loth to leave these scenes, which present so many charms for the artist, and as we steamed slowly down the fiord I cast many a lingering look behind, receiving new impressions of beauty every minute, until a short turn shut in the view completely, leaving us to pursue our way among the bergs and floes, with the lofty landmark of Kresarsoak half hidden in the clouds on our right.



NO. 65. ESQUIMAUX CARRYING HIS KAYAK TO THE WATER TO
START ON HUNT.



NO. 65*. INSTANTANEOUS VIEW OF ICEBERG.

this out-station, bringing with him a young Danish wife, who certainly could have had but a faint idea of the loneliness to which she was willingly consigning herself.

Leaving Upernavik, we steamed towards Tessiusak, through a group of islands and sunken rocks, besides icebergs and flocs innumerable; the actual distance between the two places is about fifty miles in a direct line, but we were compelled to sail at least seventy miles, on account of the tortuous course, beset with more than the usual amount of dangers and difficulties.

These were happily surmounted, and just before midnight we anchored off the little settlement, in lat. $73^{\circ} 35'$ N., which in its general appearance much resembled Karsut, excepting that the Governor's house was a frame structure about twenty feet square, with a high peaked roof, built at a very acute angle, so that the snow should not rest upon and crush it in; nor was there any high mountain at its back to give shelter from the violent north-east winter storms.

This is a dreary place at any time, being built upon a long low point of land, or rocks rather, without any sign of vegetation to relieve their barren appearance, and it must be doubly so during the long weeks of the Arctic night, when the sun is below the horizon for about a hundred days. At such times the house is banked with snow, and every possible means made use of to protect its inmates from the intense cold, the thermometer sometimes ranging between forty and fifty degrees below zero.

We were disappointed in our hopes of seeing Jansen and his family, as they were away up the fiord with all the hunters of the station, reindeer-shooting, the whole party camping out in their summer tents. This course is rendered necessary because the game is becoming every year less plentiful and more shy on account of the vigour with which the chase is pursued. The settlement would also be moved farther off to a more favoured and better sheltered locality, were it not that the fiord is so

blocked with ice for ten months of the year that it would be almost impossible for the boats with supplies to reach them from Upernavik, and there would be the same difficulty in sending away the products of their hunting and fishing. As the Danish vessels never come up here, all of this work must be done with boats, and although they might work through safely, the chances are against them,



No. 69. BERGS PASSED ON OUR WAY NORTH TO TESSIUSAK.

and, as the loss of a cargo either way would be serious, it is not deemed advisable to run any unnecessary risk, although a change in the station would prove most salutary, both for the health and comfort of those who make it their home.

A messenger was sent to look for Jansen, in the meantime the photographers resolved to take a view of his house under uncommon circumstances. The instruments were got in readiness, and as the hour of twelve was indicated, they made the picture, and were rewarded for their labours by having accomplished what was never done before, and what may possibly never be again undertaken, namely, photographing the most northern civilized residence on the globe, by the rays of the midnight sun. This gave us one of the most interesting souvenirs of the voyage.

The total population of this place is about one hundred, but at this time there were not more than fifty present, all told, and these were the very old, the very young, and the decrepit. All the rest were away at the hunting-ground, the able-bodied males devoting their time to the chase, while the women skinned and cured, or rather "cached" the game. The curing process is a very simple one. After the deer is skinned and dressed it is quartered and put away in stone "caches" or cairns, where it is left until required for winter use, being effectually covered with stones so that the foxes may not scent out and devour it. The meat requires no salting nor any other preparation to preserve it from decomposition, for in these regions it will remain sweet the whole year through, provided the animal is dressed immediately after being killed.

as they thrive well in that latitude, the original seeds were distributed from station to station along the coast by kayak express, and now these flowers are to be found in every Greenland Christian home; they thrive luxuriantly here in this, the most northern civilized abode, excepting one, on the face of the globe, a fit emblem of the Divine seed which the earnest and self-sacrificing missionary wished to see propagated in this far-off land.

The Danish ship not having yet arrived with the annual supplies, our friends were unable to furnish their table with a very great variety of food, except from native products; but their good will was plainly evident, and, after an evening spent in pleasant social intercourse, we returned on board well satisfied with our entertainment.

We made but a brief stay who accompanied him as dog-driver and chief huntsman in 1860 and 1861. Peter was one of the party who made the celebrated journey on the ice across Kennedy Channel to Grinnell Land in 1861, and his old commander wished much to see him again. There is a strong tie between men who have endured hardships and dangers together, although there may be little congeniality in tastes or associations.



NO. 67. SOME OF THE INTELLIGENT INHABITANTS, MAN, BOY, AND GIRL.

at Upernavik, on account of our anxiety to reach Melville Bay, and spend as much time there as possible while the season was open; for it is uncertain navigation at best, and our progress might be barred at any time by the pack, even before reaching the desired point.

Before entering the bay, however, we wished to call at Tessiusak, the most northerly station in the district, and also the extreme bound of civilized life. Here dwelt another of Dr. Hayes' old friends, and a shipmate as well;—Peter Jansen,



NO. 68. VIEW OF UPERNAVİK, THE MOST NORTHERN SETTLEMENT ON THE GLOBE. THE SNOW-CLAD SUMMIT OF KRISARSQAK IS SEEN IN THE DISTANCE.

When Jansen agreed to accompany Dr. Hayes on this northern expedition, he was about going home to Denmark on a visit, which he gave up for the time, partly from a natural love of adventure, partly on account of pecuniary considerations. Since then he has spent a year at home, and returned to resume charge of

separate piece was about six inches by four in size, and when the required number were neatly sewed together it had a very brilliant effect.

I may remark that everything among the natives is utilised. All Arctic birds have the body covered with a fine, soft down, and instead of picking this off when preparing them for food, the birds are skinned outright; after plucking the coarser feathers, these skins are used for underclothing, making the softest and warmest garments imaginable. Taking off the skin renders the meat more palatable, as with it a large portion of the oily secretions are removed. This makes little difference to an Esquimaux, but to our uneducated palates the birds are so extremely fishy that with the skins on the flesh would be simply uneatable.

The nests of the eider are generally some slight depression in the rocks, entirely unprotected, excepting by a quantity of down which the female pulls from her breast, and upon this the eggs are deposited. This down also serves to cover the eggs and keep them warm when the bird is compelled to go in search of food. It is by robbing these nests that the live eider-down is obtained, for it is a singular fact that this material, so light and buoyant when taken from the live bird, is utterly valueless if plucked from the dead one. The down gathering season is a sort of harvest home in Greenland, when the women and children repair to the duck-nurseries, each carrying a bag, and as there is a good handful of down in every nest the bags are soon filled. The down being at once replaced by the females, another raid is commenced and the nests again despoiled, and the operation is repeated until the breast of the bird is entirely denuded. It is said the male in such cases will deprive himself of down to give the nest a fresh lining, but I am inclined to think the story apocryphal. The nests are so close to each other that it is difficult to go more than two or three paces in any direction without stepping into one.



NO. 71. SCENE FROM RAPPIN ISLANDS, WITH ICEBERGS IN THE DISTANCE.

It is a singular fact that game of any kind will putrefy in less than two hours when killed, even at thirty degrees below zero, unless the body is cut open; the reason is this. The internal temperature of the animal is unusually high—sometimes rising to a hundred and seventy-five degrees—in order to aid in resisting cold. When life becomes extinct the skin and all natural apertures are quickly frozen, so that exudation is impossible, and the internal heat, being pent up without having any escape, rapidly induces putrefaction. But if the heart, blood-vessels, and intestines are immediately removed, the cold strikes internally and externally at the same time, freezing it thoroughly, so that it is ready to be laid away in the winter store-house.

Our vessel was an object of great curiosity, and every man, woman, and child who could either walk or creep came out upon the rocks, all in a state of noisy admiration. Some had been to Upernavik when the Danish vessels were there, and consequently were not so much surprised; but many of them had never seen anything larger than the twenty-ton boat which brought their supplies, and no one had ever seen a steamer. The "Panther" was the second vessel of any size that ever came to this lonely place. Dr. Hayes, in his schooner, the "United States," stopped a few hours in 1860 to ship Jansen and his dogs, the only important arrival at the spot till our steamer came.



NO. 70. VIEW OF THE HOUSE NEAREST THE NORTH POLE UNDER THE MIDNIGHT SUN, THE HOME OF JANSEN, THE INTERPRETER AND DOG-DRIVER OF DR. HAYES ON HIS EXPEDITION OF 1860-61.

After waiting ten or twelve hours our messenger returned with the information that Jansen was among the hills, where he could not be found. This statement may or may not have been true, but those best acquainted with the Esquimaux character inclined to the opinion that the fellow was in so much of a hurry to return and procure his promised reward that he did not take any particular trouble to carry out the object of his mission. We could not controvert his statement, and gave up the prospect of seeing Jansen at that time. Leaving a message for him to expect us on our return, we got under weigh, and proceeded north, intending to make Baffin's Islands, in about latitude 74°, the next stage of our journey.

These islands are better known to navigators as the Duck Islands, having received that appellation from the whalers who are wont to rendezvous there before entering the middle pack of Melville Bay, through which they must force a passage to the western shore of Baffin's Bay, where the whale is found. These islands, being beyond the reach of Esquimaux or Danish hunters, are a noted resort of the eider duck, as a place of fancied security to hatch their young. The number of these birds found there in the breeding season is almost incredible. It would seem the last place to look for game of any kind, the land being so barren, bleak, and forbidding. For this very reason it is selected by the ducks as their temporary abode. Finding their food, principally shrimps, in the water, they have little or no occasion to go on shore, except for purposes of incubation; therefore the most desolate spots are best adapted to their needs.

They go in couples, and present a striking contrast to each other, the male being one of the handsomest aquatic birds known, its head and neck presenting a perfectly gorgeous appearance in rich tints of green, black, and brown, while the female plumage is of a dun sombre colour. The handsomest article of native apparel I saw in Greenland was an under-garment made entirely from the neck skins of the male eider. Each

The second mate was sent in a boat to take soundings and ascertain the state of the tide, while all on board devoted themselves to the task of lightening the vessel forward. Anchors were taken from the bows and laid out astern; cables and other heavy materials brought aft on the quarter-deck, and bags of coal carried aft in the run; water-casks were emptied, and every means used that ingenuity or experience could devise to lift the "Panther's" nose a little higher in the air, so that she might back out from her undignified, ungraceful and dangerous position.

Our efforts were in vain. She remained immovable. Our only consolation was that the flood-tide was making, and in three or four hours it would reach its highest point, and then we should know our fate. We tried to wait patiently, though every minute seemed an hour. The hawsers made fast to the anchors astern were brought in through the after chocks, taken to the capstan and windlass, and hove taut; a fresh strain was put on them every few minutes as the tide rose. Everything appeared sound, but nothing was certain. Slowly the ship came up to an even keel; just at the top of high water; with engines reversed and all hands heaving at the stern hawsers, the "Panther" floated, not a minute too soon. Fortunately she had received no injury. Very tired, but greatly relieved, we were glad to turn in and get some rest, preparatory to the expected sport and labours of the next day.

It was too late in the season to procure fresh eggs, and there was not time to resort to the practice of the whalemén. Their custom is to mark out a place where the nests are thickest, and throw outside of the lines every egg that can be found, leaving the nests undisturbed. In four or five days they revisit the place and collect the eggs, which being fresh, keep for a long time.

Our hunters, however, found plenty of sport. Having been confined so long on ship-board, they were glad to have this run ashore. At first they were not in luck; they encountered only male birds on the wing, which were very shy. Proceeding towards the centre of the island they came upon

during the afternoon, though some were lost by falling in the water.

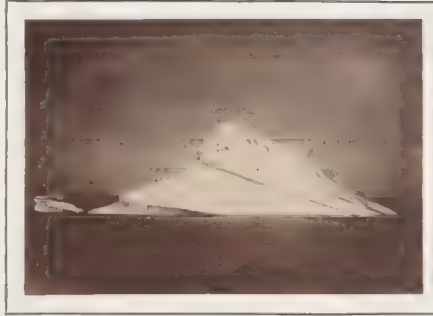
Meantime I amused myself strolling over the island, finding everywhere traces of former visitors; this having been a resort for whalemén for over two hundred years. When their ships are beset in the ice they place men on the loftiest cliffs to look for an open lead. Sometimes the crews of vessels which have been crushed and abandoned stop here to camp and refresh while making their way to the Danish settlements in boats; and here, too, they come to bury their dead. We found seven graves under the shadow of a steep cliff, in one of the most desolate spots imaginable. I should have said places of burial, for no excavations can be made here. A crevice is found in the rocks sufficiently large to contain the coffin, over which a pile of stones is built, and a plain head-board erected. One would suppose these simple tributes to the memory of the dead would remain undisturbed,

tiently, though every minute seemed an hour.

The hawsers made fast to the anchors astern were brought in through the after chocks, taken to the capstan and windlass, and hove taut; a fresh strain was put on them every few minutes as the tide rose. Everything appeared sound, but nothing was certain.

Slowly the ship came up to an even keel; just at the top of high

low marshy ground where the nests were numerous, and as the birds were slow to leave them there was no difficulty in bringing them down as they rose. From the various positions which I selected for sketching, I could hear the fusillade, sounding like file-firing from a body of soldiers, and so closely was this kept up that more than two hundred birds were shot



NO. 73. THE "GORILLA ICEBERG," SHOWING THE REMARKABLE ACTION OF THE WATER, PRODUCING A PERFECT PROFILE OF A GORILLA'S FACE.



NO. 74. SCENE IN MELVILLE BAY. ICE-PACK IN AUGUST.



NO. 72. THIS ICEBERG, FROM ITS GREAT BEAUTY, WE NAMED THE "GLORY OF BAFFIN'S BAY." THERE WAS AN OPENING IN IT ABOVE WATER WHICH THE STEAMER COULD HAVE SAILED THROUGH.

CHAPTER XI.

THE "PANTHER" RUNS ON THE ROCKS—DANGEROUS POSITION—UNPLEASANT PROSPECTS—WE GET OFF—SPORT ON SHORE—FIND THE GRAVES OF ENGLISH SAILORS—LEAVE THE DUCK ISLANDS—ENTERING THE ICE PACK OF MELVILLE BAY.



HE run from Tessiusak to Baffin's, or the Duck Islands, was very pleasant, and being over a well-known course there were no anticipations of danger. Passing between two singular-looking islands named the Cone and Wedge, on account of their resemblance to those objects, the Horse's Head, another remarkable-looking headland; came in sight; Cape Shackleton loomed next on our starboard, and soon after passing it the barren group of rocks we intended visiting made their appearance.

Satisfied that we were upon the right course, our party went below to dinner, that there might be no delay in getting ashore as soon as the steamer came to anchor. While discussing the probabilities of finding game, we were startled by a terrible shock, as the "Panther" came in collision with some unknown object. Whatever it might be, the vessel's bow ran upon it until she was brought four feet by the stern, capsizing all liquids on the table, and strewing the cabin floor with fragments of broken crockery.

"Ice!" was the general exclamation, as we sprang to our feet and started for the deck. Captain Bartlett, who was the first there, called back to us: "No ice, we are on a sunken rock."

Upon gaining the deck we could understand our position and its danger. We had been running between two of the islands, intending to bring up in the usual harbour of the whalemén, and, as no dangers had ever been reported by them, it was natural to suppose none existed. We subsequently discovered the rock had only six feet of water on it at low tide, though there was deep water on either side within four fathoms of where the "Panther" struck.

Our position was a critical one. All efforts to back off were fruitless, despite all we could do the "Panther" remained fast. Upon sounding the pumps we found she was not making any water, and here, as upon many other occasions, we had reason to be thankful that our vessel was of unusual strength, for had she failed us now, or at any time after leaving Tessiusak, there would have been no alternative but to spend the winter with our Danish friends and the Esquimaux, as we could not reach the settlements in boats before the vessels had sailed. This would have possibly involved the loss of our collections, to say nothing of the trouble and alarm to our friends at home,

The "Panther" was fast upon the rock. I believe every one instinctively felt how critical was our position, and what its possible results might be. No one spoke. Action, prompt and decisive, was necessary.

the back track must be taken. Vessels are sometimes detained in this way until the season is lost and return home without reaching the whaling grounds, or even seeing a whale; and there are many instances where they have stayed too long and been frozen up in the pack all winter. This misadventure happened to Captain McClintock in 1857, when on his final search for Sir John Franklin.

These leads are liable to close as suddenly as they open, and then comes the voyager's greatest danger, for no ship can withstand the pressure of a "nip" when two of these masses come in contact, no matter how slow their motion. I was told by a whaling captain, who had lost his ship in this manner, that the two floes came together so slowly that he had time to prepare his boats and lower them away on the ice, which gave him hopes of saving the ship, but their momentum was so great that the part of his vessel below the ice level was crushed like an egg-shell, leaving the upper works standing flush on the ice, until the floes separated, when the masts toppled over and the remainder of the ship went down. He said, looking at the edge of the floes under water, he could see where the timbers of his unfortunate vessel had been driven into the ice, and where they remained.

This is one of the dangers of early spring navigation before the ice of the last winter's freezing has become disintegrated and floated away to the southward with the current. Later in the season, when a large quantity of this floe ice is retained in Melville Bay proper by grounded bergs, countless in numbers, and also by counter-currents and eddies, an easy passage may be found by keeping further off shore. Dr. Hayes in August, 1860, made the run to Cape York in fifty-two hours, and in the following year came back in less than sixty hours.

Our course led in towards this pack, which was seemingly unbroken. As we approached, an open lead appeared, separated from us by a long projecting tongue of ice; we dashed into it at full speed, breaking off an immense piece which gave entry to a wide lead stretching northward, but the "Panther" was kept on her course towards the land until another section of the pack barred our progress about five miles off shore. On this we were unable to make much impression, so kept away north, skirting the edge of an old floe that appeared to be fast to the land ice. Sometimes we ran through detached masses of floe that almost stopped our headway; then we would back astern a few hundred yards and drive ahead with a force which would bring us successfully through.



NO. 77. THE PACK SEPARATING.

but such was not the case. Some sportsmen had used the head-boards for targets, and so shattered them that only one whole inscription could be deciphered. It read:—"To the Memory of Thos. Roberts, seaman, Leith, who died on board the *Alphen*, of Peterhead, July 6th, 1825, aged 37 years."

From the loftiest peak of the island, an elevation of about five hundred feet, we had an excellent view of our proposed route, and having accomplished what we came to do, preparations were made to depart.

Leaving the Duck Islands, we endeavoured to work in towards Wilcox Point, which bears about N. E. by E. fifteen miles distant, but soon encountered the pack; and for the first time I really experienced the difficulties of Arctic navigation.

The Melville Bay pack, and the navigation through it, deserves more than a passing notice, as it is here that the voyager meets with the greatest obstacles to his progress, and in trying to make this passage most of the vessels lost in these regions are crushed in the ice. The whalers generally enter it in May or June, and work along to the "North Water," a comparatively open portion of the sea to the southward and westward of Cape York, between the "middle ice" of the bay



NO. 75. THE MIDDLE PACK OF MELVILLE BAY, WITH A GROUP OF STRANDED BERGS. THE FIGURES OF DR. HAYES AND CAPTAIN BARTLETT GIVE AN IDEA OF THE HEIGHT. THE FIELD ICE WAS ABOUT TWO FEET THICK.

and the main pack. Passing this they work down towards Cumberland Inlet and Pond's Bay, near which are the best whaling grounds at present, the whales having been gradually driven from the east to the west side of the bay. These vessels entering the ice early in the season, before it has felt the effect of the summer's sun, when the solid floes and hummocks are from ten to fifteen feet thick, find much more difficulty in getting through than later in the season, when the surface has thawed and is covered with water, which acting on the porous salt-water ice, softens the mass so that it is easily broken by a shock which two months previous would have sunk



NO. 76. OPEN LEAD IN THE PACK ON THE 4TH OF AUGUST.

the ship. This then is the difference between floe and berg ice. The former is caused by the freezing of surface water away from the land, and when melted gives brackish water, unfit for use; the latter is the offspring of the glacier, furnishing pure water of the best quality.

The floes are sometimes miles in extent, without any apparent opening, but a change in the wind or tide will affect them so that long lanes or "leads" appear where a few minutes before was a broad unbroken expanse. Into the most favourable looking lead the vessel will be directed, and, if there is no wind, the men jump out on the ice with lines and tow her along. If the opening extends but a little distance it is called a "blind lead," and

combination such as one rarely sees, that I did not feel inclined to sleep, and, long after my companions had retired, I remained on deck, alone sketching the midnight sun in its various phases, in connection with Wilcox Point and the Devil's Thumb, although the latter object was so far away that it was impossible for me to distinguish its outlines clearly.



NO. 79. THE "PANTHER" MOORED TO THE HEAVY HUMMOCK ICE.

While completing a sketch, my attention was attracted by some objects moving on the ice between us and the land, which, as they drew nearer, proved to be a polar bear with two cubs. They were attracted doubtless by the smoke and smell from the galley, where the fire was kept burning night and day, that the



NO. 80. THE MIDNIGHT SUN IN MELVILLE BAY IN AUGUST

welcome cup of coffee might be ready when called for. I remained perfectly still, so as not to frighten them, and gave the man on watch directions not to speak or stir, that I might quietly observe them in their native state. And they certainly gave me an excellent opportunity for doing so, approaching within seventy-five or a hundred yards before exhibiting any signs of fear or hesitation. The mother walked along with dignity, her long neck projecting



NO. 78. THE DEVIL'S THUMB, AS SEEN WHEN WE WERE COMING
ROUND WILCOX POINT.

CHAPTER XII.

BORING THROUGH THE PACK TO REACH DEVIL'S THUMB AND WILCOX POINT—ICE PHENOMENA OF MELVILLE BAY—FIRST SIGHT OF POLAR BEARS—
A DAY'S SPORT, HUNTING BY STEAM—KILL SIX IN TWENTY-FOUR HOURS—INSTANTANEOUS VIEW OF POLAR BEARS ON THE ICE.



THE length the "Devil's Thumb" opened out to the northward of Wilcox Point, and we might fairly consider ourselves in Melville Bay, which has a coast line of nearly two hundred and fifty miles from Wilcox Point to Cape York. The direct course between these two localities is about north-west and south-east, but there is a wide sweep away to the northward, so that in following along the coast one would nearly describe the arc of a circle. This arc can scarcely be called a coast line, because for more than two thirds of the distance it is an icy wall with only three places where the land comes down to the water, and even then the widest of these isolated spots of earth is not more than a mile in extent. This immense line of glaciers is, as near as can be estimated, from two to five hundred feet high at the water's edge, and annually throws off icebergs innumerable, which so block up the waters that no one has ever approached near enough to make any correct measurements or become accurately acquainted with the shore line. Our knowledge of the bay proper is therefore very limited, and as navigators are always anxious to hurry through it, there is little probability that we shall become familiar with its recesses and mysteries unless an expedition should be sent out specially for that purpose.

We kept on with varied success, looking out continually for a lead through the floe that would take us further in towards the land, but, as none appeared, a favourable place was selected and we moored ship, so as to give the crew a little rest before resuming our attempts to work in shore.

This was on the 6th of August, and since our arrival on the coast, nearly a month previous, we had skirted its line for about a thousand miles without encountering any game of consequence, and our sportsmen began to think that there was not much in Greenland hunting after all, notwithstanding the wonderful stories they had read. Duck-shooting was well enough for amusement, but they wanted something to preserve as a trophy to show that they had really been north of the Arctic Circle. A pair of reindeer's antlers, at least, if no bears could be found. Failing in this, they made game of each other, and after a merry evening they turned in, hoping that their slumbers might be disturbed by the welcome cry of "Bears, close aboard!"

The scene was so peculiar, and possessed so many elements of novelty and beauty, the whole forming a



nearly in line with the back, making her appear longer than she really was; lifting her feet stealthily like a cat, and putting them far out in front, as if feeling to make sure that the ice was strong enough to bear her weight. The cubs, on the contrary, gambolled around their dam, playing with each other like two kittens, rolling over and over, and splashing the water about in the many pools that had formed on the surface of the floe, totally unconscious of danger, and seeming to feel that everything was right so long as their mother showed no signs of alarm.

From their close proximity, I was enabled to sketch their natural movements upon their native ice, and I could not but note the different appearance they presented to the dirty, sleepy-looking animals of the same species that we see in menageries at home. The colour of the old bear's fur was a light yellow on the back and sides; the under portions and legs were of a more tawny hue, approaching a light brown, yet retaining a yellowish tinge, a long remove from the white colour generally attributed to the polar bear.

When within about seventy-five yards of us the old bear seemed to have her suspicions, for, stopping suddenly, she raised her head and snuffed the air in all directions; as if doubtful whether to advance or retreat. She finally compromised by moving around towards the "Panther's" stern, accompanied by the cubs, which kept up their fantastic gambols, though not straying far from her.

Fearing that they would get to the leeward and become alarmed by the scent from the vessel, I proceeded to rouse the sleepers, who at the word "Bears" came rushing on deck without regard to their toilets, and it was a task of some difficulty to keep them from alarming the animals, each being anxious to have the first shot. Captain Bartlett, with his long scaling gun, was first on deck, and by his exertions order was restored, and all heads kept below the rail, while preparations were being made for the chase.

The polar bear is proverbially cautious about approaching objects in

of a single instance where they have been the aggressors. They are only dangerous when brought to bay.

Although our confusion soon subsided, there had been sufficient noise to alarm the mother, yet she was undecided in her motions. First advancing, then retreating, followed by the cubs, who began to partake of her anxiety, she worked gradually around to a long projecting spur of ice that extended some distance from the main floe nearly astern of us, evidently bent on satisfying her curiosity, though half inclined to run away. Had she pursued the latter course, there could have been no doubt of her escape, unless crippled by a chance shot, as the floe was wide, and in a race over it we stood a poor chance with the old bear, although the cubs might possibly have been overtaken.

Now, however, they were gradually working themselves into a trap, where there was little chance for them. The fires in the engine-room had only been banked; they were now opened to get up steam as quietly as possible. The lines were cast off, and as the bears ventured further on we backed easily, so as to bring the vessel's head to the southward. This alarmed the old bear, and with a sudden start she took the back track towards the main floe, while the cubs trotted after her, evidently partaking of her alarm, as their gambols stopped, and they floundered along, stumbling in the pools and losing valuable time. Had it not been for solicitude on her part for the cubs, the mother might easily have got away.

Full headway was given to the "Panther," and we shot towards what seemed to be the weakest portion of the spur, some distance inside of the bears' position. The crash was tremendous, but notwithstanding its severity everything kept its place, and the solid, iron-clad bows drove into the ice with sufficient force to open a lead



No. 81. INSTANTANEOUS VIEW OF POLAR BEARS IN THE DISTANCE, TAKEN WHILE RUNNING OVER THE ICE FLOE.

motion, though anything of still life, unusual in appearance, will immediately attract his attention, and become a subject of close observation. At the sight or scent of man or dog, his fears are excited, and he will generally make off at full speed, without waiting to be attacked. Indeed, these animals are not the savage creatures they are generally supposed to be; and I do not know

right through it to the water beyond. Keeping our engines in motion, the vessel was driven into the widening crack, pressing off the detached portion until there was no possible retreat for our victims unless they took to the water.

Meantime we had shot so far ahead as to be out of rifle-range, and it was necessary to put about. This required but a very few minutes, and we were soon heading towards the crack again, feeling sure that the game was safe. As the sportsmen gathered on the forecastle, rifles in hand, the photographers, who had been mysteriously absent below for some minutes, came hurrying on deck with their instruments, and requested the privilege of taking a harmless shot on their own account. The camera was arranged, and in a few seconds the group of bears was indelibly stamped upon the plate.

This feat was more remarkable than the photographing of Jansen's house at midnight, as in this case the bears and the "Panther" were in motion. The promptitude and knowledge of their profession exhibited by Dunmore and Critcherson were worthy of the highest praise, and may certainly be considered as a most unique exposition of photographic skill.



NO. 82. NEARER VIEW OF THE POLAR BEARS.

The bears, now thoroughly frightened, left their raft and commenced swimming for the floe, but we anticipated this movement by steaming through the gap and cutting them off. Thwarted in their attempt they turned back again towards the fragment just left by them. As we closed in, they simultaneously plunged into the water, but we had no difficulty in watching their motions; when they re-appeared, a fusillade was opened that killed the old bear and the nearest cub. The other cub, being partially sheltered by its mother, only received a slight flesh wound, and kept on towards the ice. Before our rifles were loaded, it had climbed partially out of the water, but a shot from one of the breech-loaders struck it in the side, inflicting a dangerous, if not mortal hurt. The little creature got up on the ice, and staggering, fell down behind a low hummock.

Running the steamer up against the floe, Captain Bartlett jumped from the bows and started in pursuit. It was his wish, if possible, to secure this one alive, but he showed fight, and was so determined to do mischief, that it was necessary to dispose of him at once. The three carcasses were hoisted aboard, weighed and measured, after which the skins were assigned to those who could best lay claim to having fired the fatal shot. This last was rather a difficult matter to decide, but after a friendly discussion of the question a decision was rendered that gave apparent satisfaction to all concerned.

This business settled, we steamed on a little further to the northward, and moored the ship alongside the

snuffing about uneasily as if he smelt danger in the air. We all remained quietly ensconced behind the bulwarks in order not to increase his alarm; seeming to be re-assured he stopped short, faced about, and came a few yards nearer to the vessel, as if determined to know something more about us.

Now advancing a little, then retreating, or pacing backwards and forwards parallel to us, watching us all the time curiously, his every motion was a study; while the lightness and agility displayed by him in springing over intervening pools of water was truly surprising when we take into consideration the immense size and apparent clumsiness of the animal.

How long this dumb play might have lasted it is impossible to say, but while our eager sportsmen were waiting with bated breath for the expected victim to come nearer, it was necessary for the "Panther" to blow off steam, and as the shrill whistle awoke the echoes of this Arctic solitude, there could be no doubt that the game was up. Our watchful neighbour stood motionless a few seconds, as if spell-bound; but at the second peal he wheeled short around and made the best of his way in shore, accompanied by a shower of rifle-bullets which struck on the ice around him, but none appeared to hit their intended mark; at least he did not slacken



NO. 86. STEAMING TO THE NORTHWARD ON THE 7TH OF AUGUST, THROUGH A LEAD IN THE FLOE AND AMONG THE ICEBERGS.

his pace for several minutes. Then halting for a moment, he faced about, and after taking a parting glance, resumed his route towards open water on the other side of the floe.

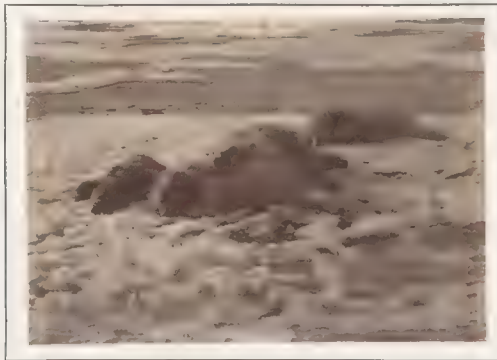
It was not our intention, however, to part from him so easily, although the only chance for overtaking the runaway was by forcing the "Panther" through the floe, which was a task of doubtful practicability, but as we could not reach the lead that he was making for without going back two or three miles, Captain Bartlett determined to look for a favourable place and try to force the passage.

Running astern a couple of hundred yards, where the floe narrowed somewhat on both sides, the steamer was driven into it at full speed, but only to meet with a rebuff. The attack was renewed again and again until the repeated concussions had the desired effect, and a narrow crack was opened, which soon widened under our steady pressure until there was a zig-zag channel through which we easily made our way.

Meantime, we had not lost sight of the bear, who was leisurely travelling towards the lead just entered by us, and was about taking the water in order to swim over to the fast ice, which was rough and uneven, with numerous hummocks and small bergs imbedded in it. We knew that if he reached the place first, our chances were gone; consequently the steamer was headed up the lead, and away we dashed in pursuit. Seeing us coming, his bearship struck out at a right angle with our course, swimming low in the water and moving

hummocks close to a grounded berg, in order to fill up the water-tanks, which had not been replenished since we emptied them on the sunken rock.

The day's sport had given general satisfaction, and during the evening those who had taken part in it fought the fight over again, with the *wise* of veteran sportsmen; a stranger unacquainted with our proceedings in the morning would judge that the race of Nimrod had taken possession of our cabin. After the subject was



NO. 84. AFTER THE HUNT.

exhausted, and hunting implements had been cleaned and put in order, all hands turned in preparatory to further expected sport on the morrow; the fortunate ones hoping to increase their laurels, while the rest expected "better luck next time."

Early on the morning of the 7th we steamed slowly to the northward and eastward through a wide lead that had opened during the night; keeping a sharp watch on every side for game. The lookout aloft soon reported a large, lone bear on the floe to our right, and he was soon visible from the deck, a most noble specimen, fully nine feet long, and declared by our old hands to be the

largest one they had ever seen. He had not stirred since we came in sight, save by a swaying motion of the body from side to side, and an uneasy turning of his head in different directions. His irresolution was amusing, but tantalizing to us, as every one was anxious to possess so fine a skin; and, flushed with the success of the previous day, no doubts were entertained of his capture. I believe that several bets were made as to who would be the fortunate one, and some even went so far as to decide what they would do with the prize;—but they were all reckoning without their host.

From some unknown cause the bear took sudden alarm, wheeled short round and deliberately made off, halting occasionally to make a further inspection of us, and then resuming his course; now and then raising his small head to the full extent of the long and graceful neck, which was the only thing about him not ungainly, and



NO. 85. MOORED ALONGSIDE THE HUMMOCK ICE, NEAR A GROUNDED BERG, TAKING IN FRESH WATER.

largest one they had ever seen.

When he was first reported the engines were stopped, so as not to alarm him, and we glided slowly along with the impetus already acquired, while our new acquaintance stood looking at us just out of rifle-range. It was evident to us that he had never seen a "Panther" of our species before, and would be glad to cultivate a further ac-



NO. 89. THE STEAMER UNDER THE MIDNIGHT SUN, ANCHORED ABOUT TWO MILES FROM THE DEVIL'S THUMB.

CHAPTER XIII.

ANCHOR UNDER THE DEVIL'S THUMB—DR. HAYES SURVEYS THE DEVIL'S THUMB—FINE VIEW FROM THE TOP OF THE MOUNTAIN—LEAVE ON ACCOUNT OF THE DANGEROUS POSITION—NARROW ESCAPE FROM BEING NIPPED BY THE ICE-FLOES.



AS the ice opened on the ebb-tide, giving a clear lead in shore, we cast off from the floe, and working in past Wilcox Point, anchored about two and a-half miles from the Devil's Thumb. This was much nearer than vessels are accustomed to go, and the position was not without danger, on account of the strong eddies and currents which whirl around the bight, bringing in heavy floes and small bergs that would sweep any ship from her anchors and leave her wholly at the mercy of the pack.

Still, as my object was to obtain sketches and photographs of the most remarkable scenery on the coast, I resolved, notwithstanding the risk, to run in and accomplish all that we possibly could. Leaving the vessel with steam up, ready for an emergency, a large party of us landed and were soon scattered about as inclination or duty suggested.

Numerous traces of reindeer were discovered, some of them quite fresh, but none of the animals were visible, though it is probable we might have found them in large numbers had time permitted us to go a little distance up the fiord. On account of the dangerous situation of the "Panther," it was not deemed advisable to stray beyond the reach of signals, if she should be compelled to leave suddenly. For this same reason we gave our immediate attention to climbing the hill to the base of the "Thumb," which springs like a spire or tower to the height of about six hundred feet above the crest of the ridge, and is inaccessible to climbers at every point. By barometrical measurement we found the base of this pillar to be thirteen hundred feet above the level of the sea; adding to this the height of the Thumb proper, we have a total elevation of between nineteen hundred and two thousand feet.

So far as we could ascertain, the "Thumb" is situated on an island, six or seven miles long by four or five in width. We did not attempt to circumnavigate it, and I very much doubt the possibility of doing so, as the bay behind it and the passages on either side were choked up by innumerable floes and bergs which have been discharged from two great glaciers at the head of the bay. For this reason we could not assure ourselves that this was actually an island, but if it is not, the neck of land connecting it with the main must be very narrow.

From the elevation attained we had an unlimited view in all directions, and I was never before so thoroughly impressed with the idea of desolation. Immediately around, the soil, or rather the rocks, were unusually barren, even for these regions. To the southward and westward Wilcox Point projected its dark and gloomy form far

rapidly, but we were going three feet to his one, and overhauled him in proportion. When within less than a hundred yards, he disappeared around a projecting tongue of ice that we had not noticed, and the odds were again in his favour. Without a moment's hesitation the captain ran alongside of the floe, and, accompanied by some of the more enthusiastic huntsmen, scrambled down the side, started across towards the head of the bight which the bear had entered, hoping to cut off his further retreat, but all too late. He was already out of the water, and making his way towards a line of hummocks which promised shelter. Volley after volley was sent after him without taking any effect, and, being much better fitted by nature for ice travel than were his pursuers, soon distanced them, and was lost to view. The party maintained the chase for half-an-hour or more, but were finally compelled to give it up, and returned aboard very much chap-fallen at the result. Bets were declared off, as was also the bear, and quiet reigned again in place of the late enthusiastic excitement.

This lull did not last long, for the look-out man aloft again reported bears in sight away to the southward. Under his direction the "Panther" was kept away until they were visible from deck, when a plan for their capture was arranged. This chase did not prove a very exciting one, the ice being so weak and rotten that the bears (an old one again with two cubs), repeatedly broke through, thus leaving us to dispose of them at our pleasure. Seeing that they could not possibly escape, I restrained the impetuosity of our hunters until the photographers had with their usual skill and celerity taken an instantaneous view of the group. Then, starting ahead again, the bears were cut off from the main floe, and, being in the water, there was little difficulty in disposing of them. Hoisting them inboard, we kept away towards Wilcox Point, until a smooth place of solid ice was found. Into this we drove the "Panther," and, after she was snugly moored, the carcasses were all lowered down over the side, and, being arranged in different positions, the hunters gathered around them, forming a novel and picturesque group, of which several views were taken.

The bears were then skinned and dressed, the choice portions of meat from the young and tender cubs hung up for future consumption, the skins given to those who were fortunate enough to establish a claim to them, and preparations made for another hunt if the opportunity presented itself.



NO. 87. THE "PANTHER" TRYING TO FORCE A PASSAGE THROUGH THE FLOE.



NO. 88. IN AN OPEN LEAD BETWEEN THE FLOE AND ICEBERG.



out into the bay. From this point around to the northward, about one-third of the horizon was bounded by ice, with scarcely a crack or lead. To the eastward, to a point nearly opposite the "Thumb," we could see either the great "Mer de Glace," or some one of its many offshoots, pressing down with irresistible force to the sea, covering its surface with icebergs in countless numbers and of every size and form.



NO. 90. WILCOX POINT AND THE DEVIL'S THUMB IN THE DISTANCE, WITH RAFTED ICE IN THE FOREGROUND.

Gazing upon such a scene, although illuminated by the midnight sun, the sense of solitude and desolation made a tremendous impression on me. No living thing was visible, neither bird, nor beast, nor insect. The unbroken silence was stifling, for none of us were inclined to talk; I could hear the pulsations of my heart; a



NO. 91. THE SOLITUDE OF MELVILLE BAY.

species of terror took hold of me;—words cannot describe it, neither can the pencil reproduce the grandeur and immensity of the scene, while the camera, with all its truthfulness to nature, falls far short.

The view before and around us was perhaps the finest expression of Arctic landscape obtained during the



whole voyage, and was in itself sufficient to repay all the inconveniences and dangers of the cruise. I would willingly have stayed several days in this vicinity, and, if possible, extended our excursions to the mainland, but when we went on board to dinner I found that Captain Bartlett, who was responsible for the safety of his vessel, deemed our position too dangerous, and was anxious to get away from it with all possible despatch. The current was strong and erratic in its movements, being affected by the tides, and brought in large quantities of ice, which had been grinding against and chafing the vessel, though no serious damage had taken place. The greatest danger would be in case of a wind springing up from the westward, for then we should be embayed without the possibility of getting through the ice that would be driven in upon us. Taking these things into consideration, we hurriedly closed our sketching, photographing, and surveying, picked up the anchor, and steamed to the northward, hoping that the pack would open sufficiently for us to work through it and reach Cape York.

I was anxious to come to this point for several reasons, but principally to visit the "crimson cliffs of Beverly," and also to get sketches and views of the Northern Esquimaux in their savage state. This remnant of a once



NO. 93. HERE WE WERE SURROUNDED BY THE WILDEST SCENE POSSIBLE TO CONCEIVE. THE LARGEST ICEBERGS AND HEAVY HUMMOCK ICE SEEMED AS IF THEY ENTICED US AMONGST THEM TO DESTROY US. WHILE FAST TO ONE OF THE ICEBERGS A LARGE MASS FELL OFF, ONLY TWO HUNDRED FEET FROM OUR STERN, CAUSING SUCH A COMMOTION IN THE WATER THAT OUR VESSEL RUBBED HER SIDES AGAINST THE ICEBERG IN A VERY DANGEROUS MANNER. WE CAST OFF AND STEAMED TO WHAT WE THOUGHT A MORE SAFE BERG, AND EXPERIENCED WHILE THERE A HEAVY SNOWSTORM.

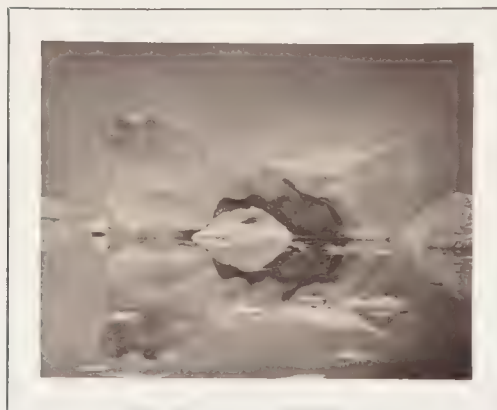
numerous tribe north of Melville Bay, are now less than one hundred and fifty in number; and, being beyond the pale of civilization, present some different characteristics from the race in South Greenland, where their natural instincts have been modified by many years' intercourse and communion with the Danes.

But little of importance or interest transpired for the next few days. We worked cautiously and slowly through the pack, sometimes beset for hours as the leads or tide-cracks closed in, and, when thus powerless, occasionally drifting in unpleasant proximity to grounded bergs. Good seamanship and good fortune bore us clear of all these dangers, although the "Panther" received some pretty severe nips.

The weather remained fine, with very little wind from any quarter, and as we were favoured with constant daylight and sunshine, the time passed quietly and almost imperceptibly. Bears were sometimes reported from aloft, but they were generally so far away from us, and from any open water, that a successful pursuit would be hopeless. In the open leads seals came up frequently, and, after peering at us with curious eyes, sank quietly out of sight before the rifles could be brought to bear on them. Our attempts to stalk them, either with the vessel, in boats, or over the ice, were equally unsuccessful. Numbers were seen either sleeping or basking in the sun; but, if asleep, they must have kept one eye open, for we could not get near them. They are incited to watch-



fulness by frequent alarms from their natural enemies, the bears, who approach noiselessly and pounce upon them. The seal is the bear's usual food, and some of the stratagems by which they approach their prey would not be unworthy of an experienced hunter.



No. 94. SCENE IN CONNECTION WITH VIEW No. 93, TAKEN WHEN AMONG THE BERGS.

The only game in any way plentiful was the little auk. These birds in immense swarms came off from shore to look for open water in which to find food. This was an indication that their usual feeding-grounds are covered by the pack, as they are not generally found so far off shore. This also was against the prospect of our getting so far to the northward as we had hoped to do. Our sportsmen brought down so many of these birds, that we



No. 95. BESET BY THE ICE.

were seldom without the materials for a broil or pie. In either case we found them very palatable, not having the strong, fishy flavour peculiar to the birds of these regions, although their food is the same, namely, shrimps, which abound everywhere in these northern waters.

One evening we had a serious nip, which came near a tragic termination. We had made fast to a floe for the night, or rather that portion of the twenty-four hours devoted to sleep, it being the captain's custom





to give his men their usual rest when it was possible to do so, in order that they might be ready for extra labour whenever the exigencies of the case required. The floe to which we were moored was held in its position by a line of bergs apparently grounded; while outside and to the westward of us was an area of open water, extending some distance in that direction, almost entirely free from drift ice. Just astern, there was another break in the ice, so that the lead was nearly east and west, instead of in the direction we wished to go.

All hands had turned in, except the solitary look-out man, and he was probably dozing. I was startled from my first sleep by a grinding, grating sound just abreast of my state-room, and at the same time the vessel heeled over, while her frame shook and trembled as if she had run against an iceberg at full speed. Hurrying on deck, I found

had struck fair along the length of the vessel it would have been impossible for her or anything else made of wood and iron to withstand the shock. This we felt fully when the "revolver" in its next circuit after grinding us so sharply, came fair alongside of the main floe with a force that sent large pieces of ice flying in the air, and, breaking off wide sections from each other, covered with a miniature pack, the water which had previously been comparatively free from drift ice.

As morning came the pack opened once more to the northward, and we renewed our attempt to penetrate it, though moving with extreme caution. Here I had opportunities of becoming familiar with ice-scenery in every form and phase. Wilcox Point and the Devil's Thumb had disappeared below the southern horizon, and the only evidence of land anywhere was a straight white line far off to the eastward, the crest of the great "Mer de Glace," which at certain hours of the day flickered and glowed like

against it in its onward course, and the stream dividing, poured down on either side to join their forces again below.

We were so far off that it was impossible to form an accurate idea of the height of this cone, but it could not have been less than two thousand feet, and was probably between two and three miles back from the water-line. I longed to work in and get closer views, but the ice-barrier was impenetrable in that direction, and, indeed, in almost every other. In fact, our journey northward was nearly at an end. Most of the leads were at right angles with our intended course, and although it was possible by striking off shore we might find open water, it



No. 96. WHERE WE PATIENTLY WAITED AND QUIETLY HOPED FOR THE ICE TO OPEN.



No. 97. HARD AT WORK UNDER A FULL HEAD OF STEAM, TRYING TO ESCAPE BEING NIPPED. 14th of August.

that an immense floe had been brought in on the flood tide, and, having knocked against the solid ice just ahead of us, had commenced to revolve as the eddies and back-water struck its uneven angles. Our own floe being held fast could not yield to the pressure, and as the revolving floe, many acres in extent, whirled around, one of its sharp points came in contact with the "Panther" between the main and mizen chains with sufficient force to crush in the side of an ordinary vessel.

Fortunately for us, we did not receive the full force of the blow broadside on, for if this immense mass

a line of living light. From aloft I could with the aid of a glass detect two places where there were narrow strips of land which the glacier in its progress had not yet overwhelmed. At another point there rose above this icy plain a lofty peak that at this great distance seemed like a perfect cone of inky blackness when relieved against the white ice-field beyond. The advancing ice had struck a-



was now getting so late in the season, being near the middle of August, that I did not feel justified in making the attempt. For vessels have sometimes been caught in the pack earlier than this, and compelled to remain until they drifted out beyond the Arctic Circle some time in the course of the following spring or summer.

Still we worked along slowly until the latitude of 75° was attained; here we came to a final stop. The floe which barred our passage was smooth, level, and perfectly unbroken, except where great icebergs pierced up through it. The ice was from two and a half to three feet in thickness, and though its surface was in many



NO. 99. THE PANTHER FAST IN THE FIELD-ICE IN MELVILLE BAY, AUGUST 14; AS FAR AS THE EYE COULD SEE IT WAS A VAST UNBROKEN SEA OF ICE.

places covered with pools of water caused by the melting of last winter's snow, there was no sign of a lead anywhere. By the course sailed we were more than a hundred miles from the place where the pack was first entered; much further, certainly, than any one had ever before ventured for purposes of art, and quite as far as it was safe to go unless prepared to winter in the ice, which we were not.

A council was held, and after discussing the case we decided not to venture further unless the pack opened within the next forty-eight hours. This period I proposed to devote to ice studies. I certainly could have found no place better adapted for the purpose. The icebergs were innumerable, of every possible form and shape, and ever-changing. As the sun in his circuit fell upon different parts of the same berg, it developed continually new phases. On one side would be a towering mass in shadow, on the other a majestic berg glistened in sunlight; so that without leaving the vessel's deck I could study every variety of light and shade.

There was, it would seem, ample work for a lifetime, and were it not for the approaching winter and the consequent decadence of the sun, I could have profitably spent months there instead of days. Naturally, most of my companions did not experience the same interest, and they were not sorry when the announcement was made that we were to put about. Hunting being their chief amuse-



NO. 100. BESET ON ALL SIDES, THE "PANTHER" REMAINED IN THIS SITUATION FOR THREE DAYS.

ment, with nothing to hunt except the little auks, the time began to pass heavily with them; and if they were not specially longing for home, they certainly preferred to spend the balance of the time at the Danish settlements, where the amusements of the day generally culminated in a ball.

There being little or no wind, the weather was so warm that overcoats were not

thought of, for the thermometer indicated sixty-five degrees at noon, and rose still higher during the day. So the boys amused themselves as best they could. Running races, playing foot-ball, and target shooting were the chief sports, principally the latter, as it required less exertion, besides, there was a large quantity of surplus ammunition to be disposed of. Although the auks were plentiful, we did not secure as many of them as we had previously, on account of the fine shot being nearly all expended. I wished much that we were near one of their rookeries,



Tim Slave



with a couple of Esquimaux to catch them for us, native fashion. They have a scoop net, with a handle ten or twelve feet long, something like a landing-net. Armed with this, they stand far up among the rocks, where the birds are flying in such numbers as almost to obscure the air, and, with a single sweep into the flock, will frequently secure half-a-dozen birds. When caught in this way they are saved from the mutilation of shot, which is apt to be severe; indeed, the bodies being small, they are sometimes almost dismembered, while, if taken native fashion, they are preserved plump and perfect for skinning.

The only chance of the ice opening so as to admit of our further progress was by a southerly gale setting in and breaking up the floe ahead, but this would also bring a new danger, for there would, as a matter of course, be an influx of drift ice, involving the probability of our being severely nipped, and driven further into the pack.

The day before that of our intended departure had arrived, and with it a slight change in the weather, which seemed to be a fore-runner of the coming winter. During the night a light wind sprung up from the eastward,



NO. 104. NEAR WILCOX MOUNTAIN.

charged with the cold air of the glacier, and sending the mercury down to the freezing point. Ice commenced forming, and in the morning every lead was closed with the young ice about two inches thick.

No time was to be lost. The fires were opened and steam got up. The revolutions of the screw soon broke up the ice under our stern, giving a little space to work in. First backing, then going ahead, and repeating the operation several times, room was obtained to wind or turn the "Panther" round, and we soon had her head pointed to the southward, but did not make much progress until after the sun's rays were felt upon the ice. Then we pushed ahead, and, after several hours of hard work, struck into a more open lead, through which our vessel drove, meeting with no obstructions save an occasional floe or arm of the pack. Resuming our practice of running over or breaking through all obstacles, but few deviations were made from a direct course, so that before evening the Devil's Thumb and Wilcox Point were once more in sight.

After passing these we had clear, open water, and made a rapid run across to the Duck Islands, where, without anchoring, a number of birds were secured on the wing. Then we shaped our course to the southward, having taken, for most of us, a lasting farewell of Melville Bay.



NO. 106. JANSEN AND HIS FAMILY.

CHAPTER XIV.

RETURN TO TESSIUSAK—LEAVE TESSIUSAK FOR AUKPADLARTOK—NARROW ESCAPE FROM RUNNING ON A ROCK—ARRIVE AT UPERNAVIK—THE KINDNESS OF DR. RUDOLPH—FIND HANS AND FAMILY—RUN FULL SPEED ON AN ICEBERG—LEAVE UPERNAVIK FOR GODHAVEN IN THE ISLAND OF DISCO.



WHILE forcing a passage through the pack which blocked up the bay, a boat was seen working towards us. When she came alongside, an athletic man, clad entirely in furs, rose from his seat and sprang on board, and we found ourselves face to face with Jansen. His weather-beaten, honest, smiling countenance was illumined by clear, blue eyes which, without regarding any of us, were turned in every direction in search of his old commander and friend. Discovering him, he ran forwards, and throwing his arms around the Doctor, embraced and kissed him over and over again. Before the anchor went down we were all well acquainted with our new host. He seemed, in fact, like an old friend, as he made us welcome in his broken English to his domain. The place itself was not new to us, but we found a wide difference between Jansen present and Jansen absent. His wife, who for more than seven years had been living at this desolate point, entertained us with great hospitality. Her table was spread with every variety of Greenland food, to which was added some excellent coffee. She ministered to our wants with an alacrity which showed the pleasure she experienced in meeting us, although she could not speak our language.

This was the only drawback to our evening's entertainment, but we managed to maintain a lively intercourse by means of a general pantomime, in which the face of our hostess was lighted with pleasure.

Since Jansen returned from Copenhagen with his wife, they have had four children, of which three were living, two girls, five and seven years of age, and Julius the baby. They were quite well, and seemed to enjoy themselves, though we were told that in the winter they, with their mother, had been sickly and pining from scurvy.

This scourge is not always the result of salt food and exposure. Darkness and a sedentary life produce it, especially in the young, although it does not assume the virulent form often prevalent on board ship. Here, for four months of the year, it is impossible for young children to venture out of doors, and the little exercise they can take within is not sufficient to keep them in good health. The small rooms must always be kept at a high, even temperature, so that thorough ventilation is impossible, and it is not surprising that all members of the family should suffer more or less during the winter, and come out in spring pale and sickly-looking.

Early in the evening one of those dense, low-lying fogs, that I have previously spoken of, encompassed the steamer, rendering navigation dangerous, so that it was necessary to go at a moderate rate, keeping a careful look-out on every side. While running down the coast, the steamer going about six knots the hour, I was awakened out of a sound sleep by the first officer, who was on the look-out at the mast head, crying out with a stentorian voice to the officer on deck, "Stop her, stop her, stop her!" which was done as quickly as possible, the engines reversed, and she was stopped in less than three times her length. It brought every one out of a sound sleep, and they rushed from their berths to the deck, and there we saw the bold rocky sides of the Horse's Head not fifty feet from the end of the jibboom; had we struck, probably not one of us would have escaped. The keen quick eye of Mr. Bartlett had discovered the danger with not a second of time to spare, and every one felt truly grateful for so hair-breadth an escape. The current had set us in nearer the coast than we were aware of. After this we steamed farther from the coast, and then resumed our way to the southward. Being unable to take any observations, we could not define our position with any degree of exactness, and there was a possibility that we might get to the southward of Tessiusak, the next intended port.

When the fog lifted, however, some old familiar landmarks were in sight. We soon made out the "Wedge" and "Cone," between which our course lay when bound to the northward. The route was now plain, and we pushed on, steering about south-east, passing rocky islands, multi-formed icebergs, and detached fragments of floe ice, until the harbour of Tessiusak opened before us.



NO. 105. THE STEAMER UNDER WILCOX MOUNTAIN,
IN THE ICE PACK AND HUMMOCKS.



NO. 105*. AMONG THE FIELD-ICE AND ICEBERGS IN AUGUST.

These old bergs had many more caves, tunnels, and arches than are seen in the fresh ones. Some of these were too high for us to determine their depth, others were at the water's edge, so that it would have been easy to take our boat through, but, being uncertain of what lay beyond, we did not make the attempt; but we frequently pulled in under the shadow of projecting cliffs; an uneasy position when we looked up and saw what was overhanging.

As we worked through these obstructions and drew in shore, we saw a group, apparently of savages, on the rocks, who commenced shouting to us while they pointed out the channel we were to take. We followed their directions, and soon landed. Clambering over the rocks, we were confronted by half-a-dozen stalwart hunters, whose blue eyes and brown hair indicated a semi-European origin, just as plainly as their broad, flat faces and high cheek-bones showed the native Greenland blood.

Immediately behind the group stood an elderly dame and two fresh-looking girls, clad half in Danish, half in Esquimaux dress. They bore a striking resemblance to the party in the foreground. Still further back on the rocks was assembled a motley crowd of unmistakable natives, sixty or seventy, all told.



NO. 108. PHILIP AND HIS FAMILY.

After a moment's hesitation, a grey-haired veteran stepped forward and accosted us in broken English, at first somewhat diffidently, but on hearing his name pronounced he at once recognized Dr. Hayes, and gave him a cordial welcome, which was extended to us all as the various members of his family gathered around.

This family consisted of "old Philip," its head, who was literally a "mighty hunter," and his five sons, the heroes of a thousand contests, the fame of whose exploits extended not only through all the district of Upernavik, but even to the most southern Inspectorate. The mother, a native Esquimaux, gracious and gentle, and the two daughters, equally gracious and gentle, complete the list.

Philip's house resembled those at the other out-stations, though much larger than most of them. It was ample for the accommodation of his family, all of whom lived with him, except two married sons.

Here, as elsewhere, the greatest hospitality was extended to us. I enjoyed it so much, that had there been good anchorage I would have stayed two or three days. I wished, also, to visit the glacier, which is reported to have many striking features, but the fiord leading to it was so filled with ice that a boat could not get through, and a heavy snow-storm came on, which rendered more dangerous the making our way, so we took our departure for Upernavik.

While running there, we had another narrow escape. We were saved by the watchfulness of the first mate, who, although sluggish in his movements, was a keen, careful fellow, and a very good seaman and navigator.

Jansen himself is not the same able and vigorous man he was ten years ago. The spot is not inviting in a pecuniary point. The whole product of his station amounts to about five thousand Danish dollars per annum, on which he receives five per cent. commission. This, with a nominal salary of fifty Danish dollars, and a certain amount of Government stores, is his sole income; a poor return for the hardships endured.

Still he likes this free wild life, devoted to hunting the bear, the reindeer, the seal, the walrus and white whale. He has pursued it for twenty years. Besides being his own master, he rules supreme over about seventy natives. Although a governor he is far from contented with his lot, and I doubt if even an extension of his sovereignty would reconcile him to his condition, which seemed to me a very hard one.

We could not stay more than twenty-four hours. Before leaving, a requisition was made on the ship's stores for a supply of good things, which were sent to Jansen's house. With these, and the expected supplies from Upernavik, the family would enjoy more comforts the ensuing winter than they had for a long time been accustomed to. Jansen's wife thanked us volubly in her own tongue, expressing her earnest appreciation of what we had done.

Having accomplished this agreeable task, and taken a parting breakfast at the house—the extreme northern limit of civilization,—we bade the family good-bye. Jansen, however, came with us to act as pilot to Aukpad-



NO. 107. JANSEN WITH HIS COMETTICK, OR SLEDGE, AND DOG-TEAM.

lartok; his wife stood on the rocks waving her adieux until an intervening iceberg hid her from sight.

As we steamed to the southward, the water appeared so open to the eastward, that we concluded to run into the fiord at Aukpadlartok, and try to find more of Dr. Hayes' old acquaintances. At first the navigation was easy, but as we drew in shore the ice became so impacted that it was not thought advisable to approach within a mile of the land.

By the aid of our glasses, the station we were in search of was discovered, and, after mooring the vessel to an iceberg, we started in a boat to reach the shore. This was not easy; it was nearly low water, the coast was lined with dense masses of grounded, hummocked ice, which we could with difficulty climb over. It gave the country a most forbidding appearance; the landscape was even more dreary and desolate than that of Tessiusak. I was tempted to put back and go on to Upernavik, not far distant, as we could see by the lofty peak of Kresarsoak. But not caring to give up what had been undertaken, we kept on, having frequently to jump out and drag the boat over the floes.

Here I saw ice under new conditions. Many of the bergs had evidently been grounded a long time; some looked as if they might have been there for years. The marks of age were unmistakable. The sharp angles had been rounded by the long-continued action of the weather, and the rugged sides had lost the glistening lustre peculiar to the recently separated berg, and were honeycombed by the numerous cascades which poured down from their summits, bringing quantities of mud and silt, and so staining the pure crystal, that at a little distance it was difficult to distinguish an iceberg from the dark grey rocks in the background.

gained an extended, though unenviable notoriety. Hans Heindrich accompanied Dr. Kane in 1853 from Fisker-naes, and subsequently ran away from him in Smith's Sound, remaining there when the "Advance" was finally abandoned. He afterwards married a woman of the northern tribe. In 1860, Dr. Hayes found him in a destitute condition at Cape York, and, thinking his knowledge of the country might be beneficial to the expedition, took him on board the schooner, and carried him back to Smith's Sound. Hans proved to be an excellent hunter, but was morose in temper, sulky and ungrateful, exhibiting the worst traits of Esquimaux character, although he had been converted and partially educated by the missionaries. He was strongly suspected of compassing the death of two members of the expedition, but it was impossible



NO. 111. HANS, HIS WIFE, AND CHILDREN. HANS WAS WITH DR. KANE'S IN HIS EXPEDITION, ALSO WITH DR. HAYES IN 1860 AND 1861, AND IS NOW WITH THE UNITED STATES EXPLORING EXPEDITION UNDER CAPTAIN HALL.

these people so free from many vices common not only in semi-barbarous, but also in civilised communities.

These missionaries are a self-sacrificing class, and it is to be hoped they will be able to enlarge their work. Some of the advantages of their labours are:—a quiet and orderly observance of the sabbath; a morality of conduct truly surprising; a written and printed language with grammars, dictionaries, school and religious books; something of literature, comprising ancient legends of their race, which had only been preserved by tradition; together with churches, schools, and an equitable code of laws.

A new minister, accompanied by his young wife, both of them strangers to the country, arrived in the "Constancia," to assume charge of the mission at Upernavik.

After a pleasant sojourn of a week at Upernavik, during which the country in its vicinity

The latter vessel managed to get her cable clear first, and being towed by boats outside made sail with a light, fair wind, leaving the "Panther" in durance, notwithstanding her steam-power.

Captain Bartlett set vigorously to work. He slacked off the cable, and drove full speed at the berg. After several attacks the weakest part broke in two pieces, leaving a free channel, much to the astonishment

to establish the fact. He was brought down to Upernavik, where he has been living ever since, an unreliable and indolent fellow, at least, so I found him. His wife is but little better. The Danes would cheerfully pay for the deportation of the whole family, if they would consent to go.

Hans must not be considered a fair specimen of the converted Greenlander; he is not put forward as an example of missionary work in this country. From the school at Jacobshavn many excellent teachers have gone to aid in spreading Gospel truths, and it is in a great measure due to their labours that we find

had been pretty thoroughly sketched, photographed, and hunted over, we prepared for departure. We had intended to tow the "Constancia" down to Proven, about forty miles to the southward, where she was to stop and complete her return freight. We said good-bye to our friends and got on board, intending to make an early start in the morning, but the night tide brought in a large quantity of drift ice and small bergs; one of the latter grounding immediately over the anchors of the "Panther" and "Constancia," effectually blocking the passage.



NO. 112. AN ESQUIMAUX PET, A BOY ABOUT EIGHT YEARS OLD.

He had gone aloft to examine the condition of the ice, when we were startled by his shouting, "Hard a starboard—quick!"

The warning was just in time to prevent the steamer's striking a sunken rock not more than two feet below the surface of the water. At the rate of speed we were going the shock must have been disastrous. Resuming our course we reach Upernavik without further incident.

Dr. Rudolph received us with his wonted cordiality, and exhibited so sincere a desire for us to stay, that we remained with him a week, enjoying ourselves greatly, and doing something, I trust, to relieve the tedium which must sometimes prevail with him. This life, however, certainly has its charm, or such men as our host would not voluntarily accept it, after their term of service gives them the privilege of going home. Like most persons who have spent much time beyond the Arctic Circle, Dr. Rudolph,

when away from it, is rest-had suffered from the severity of the winter. The scurvy had made its appearance among them, notwithstanding all their appliances for health and comfort.

During our stay, the annual ship arrived from Copenhagen, bringing the usual stock of stores and supplies,



NO. 109. DR. RUDOLPH, HIS WIFE, AND CHILDREN.

less till he gets back again; and, after a year's vacation, he told me he waited eagerly for the time of his expected return. In early life he had been an assistant surgeon in the Danish service, afterwards he devoted himself to private practice; his health failed, and he accepted a position here. He found the climate to agree with him, and has remained ever since, making occasional visits to Denmark. With a choice library, and every facility for pursuing his favourite studies, he really seems to be very happy. Neither does his wife show any signs of discontent, though it was evident she and the children



NO. 110. VIEW FROM UPERNAVIK LOOKING INTO BAFFIN'S BAY.

very much, I fancy, to the doctor's relief, as his home luxuries must have been well-nigh exhausted in entertaining us. Plenty now reigned, as the "Constancia" discharged her cargo into the store-houses preparatory to taking her return freight.

Here we found a native, who, from his connection with the expedition of Doctors Kane and Hayes, has



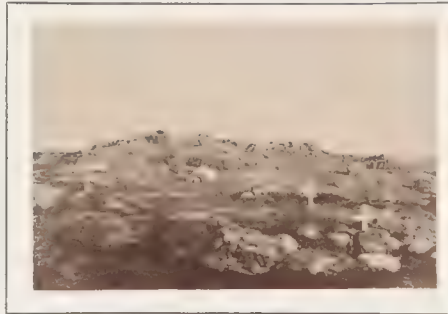
of the natives, who were wholly unused to such an operation. We soon overhauled the "Constancia," and, taking her in tow, cast off from her abreast of Proven, making the run in a little less than seven hours.

We did not intend to stop there, so held on our course, having Disco Island in sight the next morning. Off the Waigat Straits we encountered the flow of icebergs usually found in that vicinity, and after cautiously working our way through them, anchored in the well-sheltered harbour of Godhavn, our last intended Greenland port.

This harbour is near the south-western extremity of Disco Island, in lat. 69°, and on account of the various exploring expeditions in Arctic scenery. The trap rock cliffs are in some places more than three thousand feet high, and on the northern side of the harbour present a nearly vertical wall crowned with ice and snow. The water at their base is

search of Sir John Franklin, making it a place of call, as do also the whalers, it is probably better known to the general reader than any other place in Greenland.

The island itself is about two hundred and fifty miles in circumference, very high and rough in its outlines, presenting excellent facilities for studying the different varieties of



NO. 113. AN ESQUIMAUX BURIAL GROUND. THE CROSSES HAVE BEEN PLACED HERE BY SOME OF THE WHALERS, WHO HAD LOST SOME ONE OF THEIR NUMBER.



NO. 114. VIEW OF SETTLEMENT AND HARBOUR OF GODHAVN, ON THE ISLAND OF DISCO, THE ENTRANCE IS AT THE LEFT, BETWEEN THE LOW ROCKS AND THE CLIFFS.

sufficiently deep to float the immense bergs which at times are swept in by wind and tide. In the limestone formations are many curious fossils, and in numerous places large coal deposits which might be valuable if properly mined. These surface indications are so mixed with slate and shale that little use can be made of them, unless combined with other coal of a purer quality.



The inspector of this district, Mr. Smith, made us cordially welcome; as also did the governor of the place, Mr. Hansen, who had been long pleasantly known to Dr. Hayes and other Arctic navigators, to whom he had extended many courtesies when he held a similar position at Proven and Upernavik.

Under their immediate guidance several expeditions were planned and carried out; our adventurers being accompanied in many of them by the ladies of the settlement, which was unusually gay just then, the inspector's family being increased by his sister and sister-in-law, two very enthusiastic young women, who had been spending the year with him, and who were so well pleased that they would willingly have prolonged their stay, if practicable.

This port, better known perhaps by the name of "Lievely," is, on account of its central position, by far the most important station in Greenland. The capital, comparatively open, and vessels may touch there without the fear of being frozen in. Here have stopped the vessels of every English and American expedition for the last twenty-five years; and the records of these various exploring parties, as published in different languages, show the unvarying courtesy with which they were always received, and the timely help proffered to them by the Danish authorities.

Chief among these was Inspector Orlík (now deceased), a man of culture and refinement, whose studies and investigations regarding the ancient Greenlanders, with their legends and traditions, have given him a well-earned reputation among students of the literature of the North.

The readers of Arctic narratives will not fail to remember "Sophy" and her three sisters, the belles and beauties of Godhaven. Sophy still retains her position as housekeeper at the Inspector's residence, and brought to bear in our behalf all white fabric, and naturally drew attention to the tiny feet.

During the last few years Sophy's sisters have married and gone to cheer the lonely habitations of governors at various out-stations. She herself was about to accept a similar fate, expecting in a short time to leave Godhaven for some out-of-the-way place in Jacobshaven Fiord, to the governorship of which her intended husband had just been appointed. She will experience a severe change in her surroundings, for, although this has always been



No. 115. GODHAVEN, AS SEEN FROM THE OPPOSITE SIDE OF THE HARBOUR.



No. 118. SOPHY AND HER SISTER, MAREA. SOPHY IS ONE OF THE MOST INTELLIGENT ESQUIMAUX GIRLS IN GREENLAND, OFTEN ACTING AS INTERPRETER TO THE DIFFERENT VESSELS WHICH STOP THERE. SHE SPEAKS ENGLISH, DANISH, AND ESQUIMAUX.

or head-quarters of the Southern District, Julianehaab, is too far out of the way for either whalers or exploring parties to stop at, unless driven there by stress of weather, while Upernavik, farther north, is too much blockaded by ice for a general stopping place.

On the other hand, Lievely, situated on a projecting part of the Greenland coast, is, for about seven months of the year, comparatively open. Here have stopped the vessels of every English and American expedition for the last twenty-five years; and the records of these various exploring parties, as published in different languages, show the unvarying courtesy with which they were always received, and the timely help proffered to them by the Danish authorities.

Her trousers and jacket were made from the skin of the silver seal, by far the finest fur in Greenland; the hood, which was attached to the jacket, was lined and trimmed with the choicest down from the breast-pieces of the eider-duck; her snow-white boots, made from the skin of the unborn seal, came nearly to the knee, and were lined with stockings of fawn-skin, and decorated around the tops with rows of red leather cut in lozenge shapes, which made an agreeable contrast to the

idea regarding the power of this huge ice-plough may be gained from the fact that immense boulders of rock, many tons in weight, were forced back as if they had been pebbles, and others of similar dimensions firmly imbedded in the ice itself.

Once only were they in serious danger. A large rock some distance above them broke loose, and in its progress brought down a torrent of stones, gravel, and fragments of ice through the gorge by which they had just ascended, descending with irresistible force. When quiet was restored they attempted to gain the summit of the cliff, but it was impossible to reach it by that course. They returned the way they came, with considerable apprehension lest another avalanche should overtake them. However, they reached the vessel in safety, thoroughly tired and wet, having encountered a storm of sleet, snow, and rain as they passed through different temperatures in their descent.

Nothing daunted by this failure, it was determined to make the next trial by way of the cliffs directly opposite our anchorage. This seemed much more difficult than by the other route, and was heartily ridiculed by those who considered the attempt impracticable in any form; but the ladies remained enthusiastic, and the gentlemen, of course, would not give up. The weather the following day had a threatening appearance, and the ascent was postponed. In order not to lose any time I concluded to pay a visit to the glacier at Jacobshaven, one of the largest in South Greenland, and from which come numbers of the most magnificent bergs found in these waters.



NO. 120. ESQUIMAUX WIDE AWAKE. HE KEPT HIS EYE ON THE CAMERA WHILE BEING PHOTOGRAPHED, EXPECTING IT WOULD GO OFF OR HURT HIM IN SOME WAY.

Sophy's residence, and her future home will only be about fifty miles from the place of her birth, she must feel the change sensibly.

Here she always was in the best society, and has been made much of by the various visitors she has helped to entertain under the roof of Inspector Olrik; and I am inclined to think, had not this gentleman been called home to Denmark for the purpose of assuming an important position in the Greenland Company at Copenhagen, Sophy would have preferred remaining with him to becoming mistress of an inferior dwelling, though her own, and which will be where even chance vessels may not come.

I have devoted considerable space to Sophy because she has filled so important a position there, and I am certain many who have read of her before will like to know her fate. The voyager in days to come will look in vain for one whom his predecessors were wont to admire and honour. Save a possible annual visit to Disco, her life will be spent in a solitude, which, notwithstanding its freedom, with the privileges of air and exercise, is like the seclusion of a cloister.

On our arrival there we found another of Dr. Hayes' old friends, Governor Hansen, who gave us all a cordial welcome; he was soon to leave for Denmark, on a short visit. I found in the Governor a gentleman who was anxious to do everything in his power to render me any assistance he could in obtaining many specimens of natural history as well as articles of great interest, which without his aid I could not have obtained. I remember his great kindness as among the pleasantest reminiscences of my visit to Greenland.

From the north-eastern extremity of Lievely harbour, a narrow valley extends some distance inland, until it is barred by a descending glacier, which, from the precipitous nature of the rocks that form its bed, assumes more wild and fantastic forms than any we had yet seen.

by the autumn frosts, presenting a beautiful contrast to the bare, sterile rocks above us, and the overhanging masses of ice. This charming valley is one of the most beautiful I ever beheld.

The precipitous cliffs on the northern side of the harbour had never been ascended by any one within the memory of the oldest inhabitant, and they were generally considered inaccessible. Some of our party determined to attempt the ascent; partly moved thereto by the young ladies, who wished to crown the last few days of their stay in Greenland by some feat that should add *éclat* to their departure. Governor Hansen, a man possessing strong powers of endurance, thought success doubtful, but joined a party who started on a preliminary survey, preparatory to making the attempt.

Proceeding some distance up the valley, they turned to the left, and, after several hours of laborious climbing, over rock and glacier, reached an elevation of about eighteen hundred feet, having an opportunity, on the way, of observing ice-movements in their most curious form. In some places the ice had the appearance of having been moulded in a semi-fluid state before congealing. The moraine that had been thrown up by the advancing glacier was in many parts more than a hundred feet high, and it was in the gorge between this and the glacier that our party found the best route for an ascent. Where the declivity was very steep, they could distinctly hear the cracking, crushing, grinding sound as the ice worked over the rocks, and they fancied they could actually note the slow progress of the glacier. They all testify to having seen the earth at the base of the moraine in motion, and some



NO. 119. ESQUIMAUX WOMEN, SHOWING THE MANNER IN WHICH THEY OFTEN CARRY THEIR CHILDREN ON THEIR BACKS IN THEIR HOODS.

From this glacier and several smaller ones on either side, the waters from melting ice and snow join their forces in the valley, forming a considerable stream, called the Rothe, which follows a winding course, sometimes falling over a steep precipice, then gliding along peacefully a few hundred yards to resume its rapid and noisy progress over ragged rocks, forming cascades and rapids of singular beauty, until it is finally discharged into the waters of the bay. From the banks of this stream back to the bases of the cliffs on each side, were luxurious masses of Arctic vegetation, as yet untouched





NO. 122. THE LUTHERAN CHURCH AT JACOBHAVEN, ONE
OF THE FINEST IN GREENLAND

CHAPTER XV.

LEAVE GODHAVEN—ARRIVE AT JACOBHAVEN—FIND GOVERNOR FLEICHER, THE OLD FRIEND OF DR. HAYES—VISIT JACOBHAVEN FIORD TO SEE
A BLOCKADE OF ICEBERGS—RETURN TO GODHAVEN—REFIT AND START FOR HOME.



LEAVING our anchorage early in the morning we steamed out to sea, and then turning short to the eastward, coasted along the southerly side of Disco, sufficiently near the shore for us to note its beauties and characteristics. There is probably no part of Greenland that presents so many different geological peculiarities as Disco Island, and those portions of the main land immediately adjacent; but I am not sufficiently conversant with the science to explain in a satisfactory manner these various formations. I could, however, appreciate the beautiful effects of light and shade as the sunlight played on the multi-formed and parti-coloured rocks, relieved by the glistening of the icebergs that frequently intervened between us and the land.

The bay between Disco and the main is about sixty miles in width, and it was but little more than that distance to our expected port, which we hoped to reach early in the evening. We had taken an Esquimaux pilot, but so much time was devoted to photographing while on the passage, that the tide was out when we arrived off the harbour, and so many bergs had grounded in the vicinity, that it was difficult, if not dangerous, to attempt forcing a passage. The "Panther" having been securely moored to one of the grounded bergs, a party went ashore in one of the boats to call on the governor.

Although our visit was wholly unexpected we were none the less cordially received; the more so, indeed, since in Governor Fleicher Dr. Hayes recognized an old friend of sixteen years. This gentleman, with his wife, a pleasant-looking, middle-aged lady, their daughter and three sons, bestirred themselves actively in our behalf, and as the news of our arrival was made known, the doctor and minister came to aid in our entertainment, and the evening passed most pleasantly.

We were not the only ones to enjoy it. No steamer had ever been so near the place before, and only a few of the male population had ever seen one. Every point of ground from which the "Panther" could be seen was taken possession of by some one of the curious throng. The sudden arrival of so large a party of strangers had its effect upon the residents, and after the first impressions of novelty and shyness had passed off, the inevitable fiddler appeared; a smooth space of level ground was selected, where a ball, *al fresco*, was soon in progress, and mirth and merriment reigned supreme.



When I looked out at them about ten o'clock the view was very strange and striking. A few lanterns afforded a dim light in the twilight, so that the dancers could be seen, and the wild, half-savage aspect of the natives, clad in skins, flying around in the flickering glare of the lamps, made an extraordinary scene, worthy the best effort of the artist. Just then a singular Aurora shot up suddenly in the north-west; entirely different from any that I or the rest of our party had ever before witnessed. Instead of the coronal or nebulous form usually displayed, this started like the eruption of a volcano at or near the horizon, exhibiting a mass of green, violet, and purple light, which, relieved against the blue sky, formed a singular but harmonious blending of colours. From this base, which covered an arc of only a few degrees, the light shot out in fan-like form, the rays extending to and beyond the zenith, still retaining their original colours, though more faint and indistinct, while the farther extremities vibrated to and fro, breaking and blending together, or totally disappearing for a few seconds, to burst forth with renewed strength. The whole display suggested the idea of fiery serpents with their heads confined, and the extremities left free to writhe and twist about at will. I never before realized the force of the line:—

"The arrowy streams of the Northern Light."

This remarkable exhibition lasted nearly an hour, and when it closed we returned on board to rest and prepare ourselves for the morning's work.



NO. 123. SECTION OF ICEBERG, WHICH WAS BROKEN OFF FROM THE SIDE, AND WASHED IN RIDGES AS SEEN;
THE SIDE OF THE BERG FOR OVER 100 FEET PRESENTED THE SAME APPEARANCE.

Early next day we were astir, and every possible effort made to drive the "Panther" through the fiord to Jacobshaven glacier, but it was impossible. The jam of grounded bergs and pack ice was tremendous. Sometimes our vessel seemed hopelessly involved, having neither room to turn around nor sufficient power to work ahead or astern. After several hours' struggle I abandoned the idea of forcing a passage by water, but being very anxious to obtain some views of this marvellous glacier, which, from the accounts given of it, had strongly interested and excited me, I landed with a party, and attempted under native guidance to make the journey to it by land.

This was found practicable, and after great difficulty we succeeded, with the aid of some twelve of the sailors, in transporting the photographic instruments and materials over the hills. I was well paid for the effort. The scene was one of the wildest I had yet seen, as I looked down on the fiord, which was about eight miles long and four wide, filled with a perfect jam and blockaded with icebergs which had been discharged from the glacier at the head. We succeeded in getting some of the finest views, and felt well repaid for our exertions; having finished, we made our way back to the settlement. It was now the 8th of September, and the signs

of approaching winter warned me that it was not safe to remain many days longer so near the parallel of 70° north.

We remained another day with our kind friends, who were very loath to part with us.

Although this is one of the oldest settlements and missionary stations in Greenland, much of its former importance has been lost, on account of encroachments by the ice, as has been the case with many other settlements which were formerly in a flourishing condition, but are now quite barren and desolate. The climate has sensibly changed within the memory of people now living, and as the great *Mer de Glace* in its constant progress towards the sea overwhelms the land and fills up the fiords, it is probable that many of the present out-stations will be abandoned, and as the centuries roll along, all that we now know of Greenland will be a thing of the past. For with the exception of the loftier peaks it will lie buried beneath the annually-increasing sea of ice.

These facts account for the difference between Greenland past and Greenland present, and explain how the pleasant-looking country of nine hundred years ago, with its fertile fields and increasing flocks and herds, has since become an almost desolate waste, nor need scientists and scholars look beyond this to understand why the Greenland of "Eric the Red" has lost its ancient prestige, name, and fame.

It is not to be supposed that the early missionaries would have selected so unapproachable a place as Jacobshaven for a permanent location had it been so bleak and barren as it now is, and the time is probably not distant when it will only be used as an ordinary out-station. It may be that the authorities cling to it through affection for memories of the past, as here is their principal seminary for the instruction of catechists, and nearly all of the native teachers have received their education at this place. Previous to the arrival of Hans Egede, barely one hundred and fifty years ago, the Greenlanders had no written language, nor even the language of signs generally found among other barbarians; but now, thanks to this earnest man and his faithful followers, they have a written and printed tongue; some of their minor books having been composed, printed and illustrated by themselves.

The present pastor, like most of the other Danish officials, is a man of education and refinement, as is also the surgeon, Dr. Pfaff, who devotes most of his leisure time to the study of Greenland antiquities. His collection of native manufactured articles is very ample and rare, containing specimens of every possible implement intended either for domestic purposes or the chase, before intercourse with the Danes taught them the use of better things. These various articles have been manufactured from different varieties of stone, some of them being used as tools with which to make the others. One of the hardest materials employed was red cornelian, which is plentiful in nearly all parts of the country, and susceptible of a high polish. All of these things he explained to us cheerfully, and even parted with some duplicates, though the bulk of his collection is intended for the celebrated National Museum at Copenhagen.

After giving a parting entertainment to the white residents of the place, as a slight return for the many civilities and favours they had so liberally showered upon us, we steamed again for Disco, to refit ship and prepare for the voyage home, as our stay in Greenland was rapidly drawing to a close. We arrived at the old anchorage on the 10th of September, passing on the way a wrecked English whaler. She had been run ashore here, which indicated that her loss was either intentional or the result of very gross carelessness or ignorance.

But little more occurred to us which will interest the reader. We remained at Lively another week, either entertaining our friends or being entertained by them, while Captain Bartlett was repairing and painting his vessel, in order to obliterate all traces of the rough usage she had received; for, after leaving Disco, he did not expect any severe encounters with the ice.

The most important occurrence of the week was the second and successful attempt to scale the cliffs north of the harbour. Being engaged in making some new studies, I did not myself accompany the party, which included the two ladies, who it was certain would not be the first to give up. Leaving us soon after breakfast, they crossed to the opposite shore in boats, and easily effected a landing. With our glasses we watched them for a long distance as they toiled upward, until we lost sight of them.

It was eight o'clock in the evening before the party returned, jubilant at their success, having reached the summit of the mountain, which by barometrical measurement they found to be a little more than three thousand feet above the level of the sea.

My narrative is finished. All the repairs having been completed, and a last evening spent ashore to say

our parting words, we sailed one pleasant morning, having in tow the "Hvalfisker," both of us homeward bound. Outside of the harbour we cast her off, and, after a favourable run, arrived at St. John's on the 3rd of October, just three months from the day we started. During this time we had sailed nearly five thousand miles, encountered all the perils of Arctic navigation, successfully accomplished the objects of the expedition, and returned to our starting point without meeting any accident, loss, or damage worth mentioning. And our only regrets were on account of the many warm-hearted friends we left behind.



NO. 124. HOMEWARD BOUND.



NO. 125. SEALING VESSEL PASSING AN ICEBERG OFF THE COAST OF LABRADOR.

